THE AMERICAN PRACTITIONER

JUNE, 1883.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

CASES OF HODGKIN'S DISEASE.*

BY J. C. MACKENZIE, M. D.

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The cases which I am about to report are examples of that fortunately rather rare affection, Hodgkin's disease. This is the name by which it is most frequently designated by English-speaking physicians, but it is known by a great many other terms. Trousseau has called it adenia; Billroth, and following him Birch-Hirschfeld, malignant lymphoma; Hodgkin himself, and afterward Wilks, lymphatic anemia; Cohnheim, from its close relation to leucocythemia, has given it the name of pseudo-leucocythemia: a title in very frequent use also is lympha-denoma, applied to it by Wunderlich.

The disease is characterized by two periods: First, a period of glandular enlargement, more or less extensively diffused over the lymphatic glandular system, during which the general health is pretty well maintained, unless the enlarged glands are so situated as to seriously compress important organs, when of course disturbance in the functions of these organs will result, and will

*Read before the Cincinnati Medical Society.

secondarily affect the nutrition in proportion to the importance of their functions. Second, a period when the general nutrition of the system is profoundly impaired, as evidenced by the loss of flesh and strength and progressive anemia, due in part to pressure exercised upon structures in the vicinity, but mainly to defective sanguification from the disease of such a number of organs whose function is in the normal condition connected with the formation of the blood.

Lizzie P., Kentuckian, aged twenty-eight, laundress, a widow, admitted to the Cincinnati Hospital October 24, 1882. Her father died from violence; her mother and other members of her immediate family alive and healthy. Had smallpox sixteen years ago; otherwise has enjoyed good health. Denies ever having had syphilis. The illness from which she is at present suffering began about nine months ago. At that time she noticed a small round tumor in the left axilla; this increased in size and was attended with pain in the left side of the neck and left breast. Soon after the glands on the left side of the neck became also involved and the breast swollen. The tumors continually grew larger, and two months ago she began to cough and occasionally to have attacks of dyspnea. About a month ago the glands on the right side of the neck also began to enlarge, and soon afterward those in the right axilla. The growth of the glands in the various groups implicated has steadily progressed, and the symptoms dependent thereon have become constantly more aggravated.

Condition on admission: She is a large, well-developed woman; rather obese. The left side of the neck, both anteriorly and posteriorly, is occupied by numerous enlarged lymphatic glands, each one about the size of a hen's egg. They are quite hard, and the skin covering them is of the normal color. There are also several enlarged glands on the right side of the neck, but they are not nearly as large as those on the left. The whole neck anteriorly and the upper part of the chest are the seat of lymphatic edema. She complains of dyspnea, and can not sleep at night in the recumbent position. Very little

change took place in condition of the patient. For the relief of the dyspnea codeia in half-grain doses every three hours was administered, which at first was efficacious but afterward failed.

On the 2d of November it was noted that the respiratory sounds heard on auscultation were obscured by loud tracheal râles. Chloral was tried, to relieve the dyspnea and procure sleep, but without much result, and patient frequently declared that she would suffocate.

From the time of her admission until November 3d the patient was in the surgical ward under the care of Dr. Dandridge. On that day she was transferred to my ward as being a medical case. At that time she presented a somewhat cyanotic appearance. The neck was as described above; there were several enlarged glands in each axillary space; the left arm and breast were very much swollen and brawny, in short in a condition of hard edema; there was edema of the lower extremities, though not very much. She was compelled to remain constantly in the sitting posture, as the recumbent position always induced the feeling of impending suffocation. She had no fever; coughed a good deal, and respiration was somewhat labored; the percussion note was normal over the chest; auscultation was extremely unsatisfactory on account of the tracheal sounds. As far as we could note there was nothing abnormal in the respiratory sounds; the tumors in the neck did not, so far as we could judge, so seriously compress the larynx and trachea as to account for the dyspnea present; appetite was poor; bowels regular; urine contained a trace of albumen, and microscopic examination revealed the presence of leucocytes; menstruation is regular. She was ordered eight drops of Donovan's solution three times daily, and one sixth of a grain of morphia and one one-hundred-and-twentieth grain of atropia every three hours at night.

A few days after her transfer to my ward I made an examination of her blood and found it to contain a very considerable excess of white corpuscles; but a subsequent examination two or three days after the first failed to confirm this excess, so that I suppose it depended upon some temporary condition. The

morphia and atropia enabled her to sleep better, but the dyspnea continued to such an extent that she could not lie down, but slept sitting in her chair and resting her head upon the bed. As she remained in about the same condition, and was dissatisfied, she asked and obtained her discharge on the 13th of November.

Upon her re-admission on the 15th (for she only remained out of the house two days), I again examined her chest as well as I could with the noisy respiration present. I found percussion normal, and auscultation normal except for the râles communicated from the trachea; the dyspnea was rather more urgent than when discharged, and she coughed a good deal; she was still slightly cyanosed and quite markedly anemic; the edema of the legs was more pronounced; the glandular enlargement in the neck and axillæ was about the same, as was also the lymphatic edema of the chest and left arm. I made an examination of the inguinal regions, which she had positively refused to permit during her previous sojourn in the house, but found the glands in that region perfectly normal. It was not possible to obtain any satisfactory knowledge as to the condition of the spleen, as the patient could not lie down, and she was very fat. As far as the examination by palpation, while she was sitting in her chair, would enable us to judge, there seemed to be no enlargement of the organ. She was put upon the same treatment as before, and in a day or two expressed herself as feeling rather more comfortable, which probably is referable as much to the quiet as to the medicine. She remained in very much the same condition, so far as the symptoms were concerned, until the morning of the 26th of November, when she suddenly died. At my visit on the 25th I found her sitting in her usual position in her chair, leaning forward upon the bed. Her breathing was neither more hurried nor more labored than it had been since her admission, and when I asked her how she felt, she replied that she felt about the same. I did not make any physical examination, as there seemed to be nothing new in her case to call for it. Her temperature since her re-admission had been taken several times, but always found normal.

Post-mortem examination made by Dr. Joseph Eichberg twelve hours after death. The body that of a very large woman; edema of the whole surface; rigor mortis absent; both sides of the neck very prominent, indurated and nodular; subcutaneous adipose tissue abundantly developed. On opening the chest the pleural cavities were found to contain an abundance of serum in which were a few flocculi of lymph. The amount in each pleural sac was about three quarts. The pericardium was also found to contain about eight ounces of sero-fibrinous fluid. The surface of the visceral and parietal layers was found to be the seat of numerous white growths situated in the subserous connective-tissue, which were in all probability the cause of the pericardial inflammation and effusion. The lungs were every where studded with small spherical white growths, varying in size from that of a pin-head to that of a pea. Both primary bronchi, as well as the trachea, were surrounded by a mass of enlarged and indurated lymphatic glands. This mass had become adherent to the apex of the right lung, and was continuous with smaller cheesy masses deposited in this part. Section of these enlarged glands revealed the fact that numerous follicles of the glands had undergone the process of softening and caseation. The lumen of the trachea was not seriously encroached upon, as it admitted the finger without difficulty; but the primary bronchi were every where firmly imbedded in the mass of agglomerated glands. Projecting over the opening of the glottis from above, on the right side, was another of these glands which obstructed about half the opening. The enlargement of the neck was due to a similar hypertrophy of the cervical glands. This extended upward to the angles of the jaws, and projected well into the cavity of the mouth. The heart was soft and flabby; the cavities were dilated, and contained a small quantity of soft, clotted blood. The peritoneal cavity contained half a gallon of serous fluid. All the abdominal organs were adherent to each other by fibrous bands, the result of former peritonitis. The liver was enlarged, weighing five pounds; the capsule showed in two or three places cicatricial thickening; the consistency was

increased; it contained, particularly in the left lobe, a number of pearly nodules. The spleen was enlarged, softened, weighed nineteen ounces, and contained a few caseous nodules each about the size of a hazelnut; small and large intestines appeared normal; kidneys were normal; the retro-peritoneal glands exhibited the same hypertrophy as those before referred to; only two of the mesenteric glands were enlarged, about half an inch in diameter, and they were calcified; the inguinal glands were slightly enlarged, but not nearly to the same extent as those situated elsewhere; the brain was edematous, otherwise normal.

A feature of great interest in connection with this case is the dyspnea and its relation to the effusion found post-mortem in the chest. When I first saw the patient the dyspnea was very pronounced. I made at that time a most careful examination of the chest and found nothing abnormal either in the lungs or heart. Upon the re-admission of the patient to the hospital I again examined her, with a like result. For the week preceeding her death I made no physical examination, as the symptoms remained unchanged. For this neglect I acknowledge myself deserving of blame, for important pathological conditions often creep on most insidiously in these chronic diseases attended by debility. The respiration as I have said, when I first saw the patient, was labored but not at all hurried, and this was the character of it throughout. On the last day of her life there was no greater frequency of breathing than when she first entered the house. The question then arises, at what time did the effusion in her chest occur? I do not think that there could have been any appreciable quantity at the time of her re-admission, as I certainly, with the careful examination that I then made, would have detected it. Possibly at that time a small quantity was present, and it increased very gradually up to the time of her death. Another point worthy of note is the character of the fluid and the condition of the pleural membrane. Apart from the few flocculi contained in the serum there was nothing to indicate the presence of inflammation. The pleural surfaces were quite smooth, and it is probable that pressure upon the veins by

the enlarged glands at the roots of the lungs was the cause of the transudation; in other words, that it was rather a dropsical than an inflammatory effusion. Trousseau, in his Clinical Medicine, refers to a similar case.

It is strange that, with such impediments to the aëration of the blood as existed in this case, the dyspnea should not have been greater even than it was. In the first place there was the firm compression of the primary bronchi, then the presence of about twelve pounds of fluid in the chest, and finally the existence of pericarditis with effusion into the pericardial sac. A consideration of these, together with the sudden death, would suggest the possibility that a considerable quantity of the fluid in the pleural cavities had been rapidly poured out just before the fatal issue, and perhaps had been the immediate cause.

Frank M., aged forty-four. I first saw this patient in July, 1873. He was then suffering with constitutional syphilis manifested by psoriasis palmaris and enlargement of the glands of the neck; his general health was considerably impaired, partly from the syphilis and partly because of his having been working very hard. I put him upon iodide of potassim and bichloride of mercury. He took this more or less constantly for several months, and as the result all his syphilitic symptoms disappeared and his general health greatly improved. He was troubled with chronic pharyngitis, and, having in his business to talk a great deal, he used to come in occasionally to consult me in reference to it, and to have it brushed with a solution of nitrate of silver, which gave him temporary relief; so that I saw him several times in the course of every year. At one time a small ulcer appeared on the front of the leg, which I regarded as due to syphilis, and treated him as before, with a satisfactory result, the ulcer healing. In the early summer of 1877 he came to the office and stated that a short time before he had noticed a tumor on the side of his neck near the angle of the jaw. I found upon examination that it was an enlarged lymphatic gland. This I suspected to be a fresh development of his syphilitic disease, and treated him accordingly, but without the slightest effect. The

gland first affected increased slowly though steadily in size, and other glands became implicated, first in the neck and then in the axilla. In addition to the corrosive sublimate and iodide of potassium, which he had taken internally, he had been applying for several weeks iodine ointment to the hypertrophied glands. Being convinced by the failure of this treatment and the involvement of so many of the lymphatic glands that the disease was not syphilitic, but that it was a case of Hodgkin's disease—in which opinion the late Dr. W. H. Mussey, whom I consulted in the case, agreed—I stopped the anti-syphilitic treatment and put him upon Fowler's solution of arsenic. This he continued faithfully for several weeks, without the least benefit. His general health in the meantime was becoming impaired; he looked anemic and was losing flesh and strength. I then prescribed Donovan's solution, and this also he took for some time, but the glandular hypertrophy continued. Becoming disheartened with the failure of the remedies to produce any improvement, he took a trip to the White Sulphur Springs, starting in the beginning of October. He remained there for two or three weeks, then went to Washington, returning home some time in November. Upon his return he came to see me. I found that, instead of being benefited, he was in a worse condition than before. The glands were larger and formed almost a complete collar around his neck; the axillary glands had also increased in size. He was weaker and thinner. I gave him tonics and ordered stimulants and as much nourishment as he could take. The last time I saw him was on the 13th of December, 1877. At that time he was unable to come to the office, and sent for me to come and visit him at the house of a connection in the city. I found him worse in every respect. After this time he passed through the hands of several physicians and died, as I understand, of exhaustion on the 4th of April, 1878. He never exhibited while under my care any disturbance of respiration, nor did the glands grow, as far as they could be seen, in such a manner as to give rise to any serious pressure upon the air-passages.

As to his family history, the only fact bearing upon his case is that his sister suffered with some affection of the neck, attended by swelling and suppuration, and eventually died of it. The patient was for some time a prisoner in Libby prison, and suffered the consequent privations. He lived well, drinking more or less every day, but was not at all intemperate.

Belle B., Cincinnati, aged twenty-three, saleswoman. I treated this patient during her childhood for several slight ailments, excepting which she had always enjoyed good health. In July, 1880, I attended her in an attack of febricula, from which she perfectly recovered in the course of a few days. Soon afterward she called my attention to a swelling under her right arm. Upon examination I found this to be an enlarged axillary gland. I directed her to rub over it some ointment of iodine, and to take syrup of the iodide of iron internally. I saw her two or three times afterward within the next few weeks, but, as the swelling did not subside under the treatment, she became dissatisfied and went to the Good Samaritan Hospital, where the gland was removed. She remained in good health, but she noticed that after the operation her right hand and arm began to swell, and this has continued ever since.

On December 28, 1882, she came to my office and directed my attention to a swelling a little behind and below the angle of the jaw on the left side. This was an enlarged gland and was quite hard; the skin over it was normal. Upon examination I found some of the posterior cervical glands on the right side also enlarged. The patient presented a healthy appearance. She was fairly nourished, not at all anemic. She had no cough, no fever. Her appetite was good and digestion normal. She had always menstruated regularly. Her breathing was natural; and, indeed, she expressed herself as quite well apart from the enlargements, which were objectionable rather on account of their appearance than from any inconvenience which they occasioned her. Her right arm and hand were very much larger than the left, and pitted slightly upon pressure, but were not at all painful. She was ordered to take ten drops of Donovan's

solution three times daily, and to rub the ointment of iodide over the enlarged gland on the left side of the neck. This treatment was continued steadily for a month, but without any influence apparently upon the disease. The size of the enlarged glands remained about the same. It was then suspended, and she was ordered one sixteenth of a grain of corrosive sublimate with ten grains of iodide of potassium three times daily. This course was pursued for two or three weeks, but with no better results than the other. In the beginning of March she directed my attention to an enlarged gland which she had recently discovered just above the left clavicle. It was about the size of a hazel-nut. The other enlarged glands remained in very much the same condition as when I first saw them. Her general health continued excellent. The corrosive sublimate and iodide of potassium were omitted and Donovan's solution resumed.

I saw the patient last on the 14th of March. She seemed to be in about the same condition as when seen before. No new glandular enlargement had occurred, and those present had not at all increased in size, but neither had they diminished in the slightest degree. Her general health was as before, very good. The family history in this case is bad. She is one of a family of five, one son and four daughters. The son is stout and vigorous looking, the daughters, except the subject of this report, are tall, spare, and delicate looking; she herself is the stoutest and most robust of them all. Her mother is alive and fairly healthy. Her father died many years ago of consumption, and his mother also died of the same disease. I saw the mother of this patient on the 14th of April, and she informed me that her daughter is about in the same condition as when I last saw her.

An interesting question arises in connection with this case as to the relation of the enlarged gland first observed in the axilla and the subsequent outbreak in the neck; and another point of importance is, as to whether the removal of gland had an influence in postponing the extension of the disease to other parts. I am inclined to the view that it was the forerunner in the diseased process, and that in all probability its excision was of

benefit in withdrawing the morbid influence, and thus for a time arresting the course of the malady. This proceeding has been recommended by high authorities when the disease is strictly localized, as it was in this case in the beginning. Of course when many groups of glands are involved, their removal would be out of the question, not only in consequence of the extensive operative procedures necessary, but also because of the almost certain implication of gland-structures in parts altogether inaccessible, as those about the bifurcation of the trachea and in the abdominal cavity.

Besides the three cases which I have reported above, I have seen two other cases of this singular disease. One occurred in the Commercial Hospital, in 1866, when I was resident physician in that institution. As I have been unable to recollect the name of the patient I have been unsuccessful in finding the history in the record-books. I can only state that the patient was in the house several weeks, that his cervical glands were enormously hypertrophied, and that he died of asphyxia, having suffered much from dyspnea for some time before his death. The patient was a man between twenty and thirty years old, and at the time of admission did not present much anemia.

The other case occurred in the practice of Dr. Murphy, through whose kindness I saw the patient. He was about forty years of age. The cervical and axillary glands were greatly enlarged, there were marked dyspnea and a congested appearance of the face and head, no doubt due to pressure of the glands upon the veins of the neck. We saw the man but once, but we heard that he died a few months afterward of asphyxia.

In certain important particulars the report of several of these cases as I have given them is quite defective: In the first place the state of the blood with reference to the number of corpuscles and the numerical relations of the red and white corpuscles to each other was not investigated; in the second place the condition of the spleen as regards its size was not determined. Both of these points are of capital importance in making a diagnosis between Hodgkin's disease and leucocythemia, indeed

a microscopic examination of the blood is the only means by which a positive conclusion can be arrived at between these two very closely allied affections. In both there may be enlargement of the spleen; in both there may be enlargement of the lymphatic glands; in both we may have anemia with progressive emaciation and debility. The only essential distinction between them is the increase of leucocytes in leucocythemia and the absence of any such increase in Hodgkin's disease. Nevertheless, although it can not be said positively that some of these cases were not leucocythemia, yet I think, when the conditions presented and the history of the cases are considered, there is a great probability of their being cases of Hodgkin's disease. In all of them the glandular disease preceded for a considerable time any indications of systemic disturbance or anemia, while in leucocythemia, in those cases in which enlargement of the lymphatic glands is present to any extent, the anemia would be an early condition.

The pathology of this affection is involved in the utmost obscurity. All that we know is that there is a predisposition to enlargement of the lymphatic glands and adenoid tissue throughout the body, but what produces this predisposition and what determines immediately the outbreak of the disease are in most cases unknown. Trousseau maintains that occasionally irritation is the immediate cause of the enlargement, but it can be proved in so few cases that its importance must be regarded as very questionable. Syphilis has also been adduced as lying at the foundation of the predisposition, but with regard to this, the number of cases in which syphilis has existed are very few, and the almost invariable futility of anti-syphilitic treatment would tend to exclude it as being influential in the production of the disease. I may state, as showing the uncertainty of our knowledge as to its pathology, that while most writers maintain an essential difference between Hodgkin's disease and leucocythemia some of the most recent do not acknowledge any such distinction, and hold that the two are simply modifications of the same affection. Jaccoud and Labadie-Lagrave, in their article in the

Nouveau Dictionnaire de Médecine et de Chirurgie, treat of them both under the same heading, and Cornil and Rauvier, in their work on Pathological Histology, consider them as the same disease modified in consequence of some still undiscovered conditions. Even those who describe them as separate maladies acknowledge that in some cases of Hodgkin's disease there is an excess of white blood corpuscles. Now, in what respect a case of Hodgkin's disease with excess of white corpuscles can differ from a case of so-called lymphatic *lukaemia* I can not understand. So that I think we must admit a very close relationship between the two, and that while we may at once pronounce a case with large excess of leucocytes and enlargement of the spleen one of leucocythemia, and, on the other hand, a case with great hypertrophy of the lymphatic glands throughout the body, without excess of leucocytes and no manifest enlargement of the spleen, one of Hodgkin's diseases, yet there are some cases possessing the characteristics of both diseases, and, as it were, forming a bond between the two, in which it would be impossible to say positively whether they belonged to one class or the other.

The treatment in these cases which I have reported seems to have been quite ineffectual. Such has been the result generally, for, though under certain plans of medication, cases have recovered, yet these same means employed by other physicians have been found utterly useless. In estimating the value of any line of treatment in this affection it should be recollected that in some cases, even when under no treatment, there will be protracted periods when the pathological process seems to be quiescent, and there may be improvement, as indicated by diminution in the size of the glands and a better condition of nutrition of the body generally, but after a time the disease resumes its course and the patients succumb; so that before any favorable conclusion can be arrived at as to the beneficial influence of any course of management the case should have been under observation for some length of time. We may therefore conclude that while some cases of cure have been reported under

the action of phosphorus, arsenic, iodine, various mineral baths, etc., these are isolated cases, and in the vast majority of patients afflicted with this disease the progress is steadily toward a fatal termination, uninfluenced by the various measures adopted for their relief.

CINCINNATI, O.

HEMORRHAGE FROM THE RECTUM.*

BY J. M. MATHEWS, M. D.

I have selected as a subject for a short paper, hemorrhage from the rectum—its causes and treatment. Every physician is liable to meet with a case of the kind at any time, which may prove dangerous in its results. The blood-supply of the rectum is abundant. Permit me to recall the principal distributions to the part, viz: (1) The sacra-media, descending upon the last lumbar vertebra, along middle line of the sacrum to the upper part of the coccyx, anastomosing with the lateral sacral arteries, branches from it to the posterior surface of the rectum. (2) The superior hemorrhoidal artery, the continuation of the inferior mesenteric, descends between the layers of mesorectum opposite the middle of the sacrum, divides into two branches, one on either side. Small branches are distributed to the lower end of the gut, anastomosing with each other, the middle and inferior hemorrhoidal main branch being within a finger's length, or four inches, of the anus. There is danger here in the division of stricture. (3) The middle hemorrhoidal, from the anterior division of the internal iliac, comes off with the inferior vesical anastomosing with other arteries. (4) The inferior or external hemorrhoidal branch or branches (two or three) of internal pudic, one of the terminal branches of the anterior trunk of the internal iliac, given off as the artery passes behind the tuberosity of the ischium, distributed to the muscles and integuments of the anal region. This is often cut in operations upon fistulæ.

*This is an abstract only of the paper read by Prof. Mathews, before the Kentucky State Medical Society, at its meeting in April.

The principal venous supply is from the hemorrhoidal plexus surrounding the lower end of the rectum, formed by the superior hemorrhoidal veins, branches of the inferior mesenteric and middle and inferior hemorrhoidal, which empty into the internal iliac. It will be observed that there is free communication here between the portal and systemic systems, and it is this point that causes the confusion of some writers in speaking of the valves, or no valves, in the veins of the rectum. Of course, with this immense blood-supply, the rectum is very liable to hemorrhage. The causes briefly named are as follows:

1. Hemorrhage following the ligation of internal piles.
2. From ulceration of the bowel.
3. From capillary hemorrhoids.
4. From hemorrhagic diathesis.
5. From polypi.

These, in my opinion, are the only causes calling for surgical interference. Serious hemorrhage may result from ligating internal piles. Sir Astley Cooper, eminent surgeon that he was, once lost a patient from this cause. There are three causes for hemorrhage following the operation:

1. The division of a vessel or vessels.
2. Puncture of a vessel in transfixing tumor.
3. From sloughing of the pile.

The hemorrhage that follows after ligating piles is either accidental, recurrent, or secondary. Primary hemorrhage is rare, usually no ligature is necessary for its arrest. Oozing that may follow after shock may be controlled by pressure and the use of hot water. The reaction, after cold is applied, is sometimes dangerous. I am sure that hot water acts as a "stimulant to both the walls of the vessels and to the nerve fibrils in the wound." It does not produce shock. Styptic solutions should not be used after ligating piles, they cut the ligatures.

In the method of transfixing piles advocated by the late Dr. Van Buren, serious hemorrhage may occur from piercing a blood-vessel. The only way to control it would be to draw down and place a ligature above the point of bleeding.

Hemorrhage from sloughing of the tumors. This is seldom met with if the operation is by the ligature. It has been my misfortune to witness several severe cases of the kind following the operation of injecting piles with carbolic acid. In such event the ligature to the bleeding vessel can not be thought of. The only recourse is to plug the rectum after the manner advised by the authors.

Hemorrhage from ulceration of the bowel. I use the term *ulceration* here, believing that it is an ill term, yet the books do not give us a better one. True ulceration is not and can not be accompanied by much bleeding, for the reason that there is sufficient inflammatory action incident to the disease to clog the vessels with lymph, hence, prevents hemorrhage. The condition of which I speak, in contradistinction to ulceration, is an abrasion or peeling off of the epithelium of the gut. Very little inflammation, if any, attends it, and much hemorrhage may result. Such cases are often, I am sure, mistaken for other dis-diseases, notably dysentery. Treatment: The object of treatment here is to produce sufficient inflammatory action to stop the bleeding. The very best application is, in my opinion, pure carbolic acid. It should be applied freely to the abraded surface.

Hemorrhage from capillary piles. It will be remembered that these are the small, spongy, raspberry-looking pile. Its disposition is to bleed upon the slightest provocation. The blood lost is usually arterial, and the quantity may be enormous. Treatment: It is best to catch up the entire mass and place a ligature around the base. A serrated-edged forceps should be used in lieu of the forked one commonly in use, to prevent tearing. The actual cautery or nitric acid may accomplish the same result.

Hemorrhage from a hemorrhagic diathesis. This, as a cause for bleeding from the rectum, is scarcely mentioned by the books. That it occurs has been evidenced in my practice. The symptoms are sometimes alarming. Treatment: The habits of the individual should be changed from sedentary to active life. Exercise, fresh air, proper diet, etc., should be enjoined. The

sheet-anchors in treatment is ergot, or ergotin, given for its full effect. It may be combined with some form of iron. The best local applications are hot water (injected), sub-sulph. iron, and pure carbolic acid. Each repeated as often as necessary.

Hemorrhage from polypi. These tumors lie usually above the sphincter muscles, but all at once may begin to bleed, either from detachment or other causes. They should be brought into view by forcibly dilating the muscles, and a ligature applied to the pedicle.

I have met with one case of vicarious menstruation through the rectum. Such cases are rare, and need no treatment.

LOUISVILLE.

ON SOME CASES OF HEAD INJURIES TREATED BY THE TREPHINE.*

BY W. O. ROBERTS, M.D.

Professor of Surgical Pathology and Operative Surgery, University of Louisville.

A man, aged forty-five years, of intemperate habits, while in a drunken brawl was struck on the head with a beer-mug, the blow felling him to the floor and producing temporary insensibility. He soon recovered consciousness, and walked to a physician's office, five blocks distant, where the scalp wound, situated on the left side of the head, about one inch above the frontal eminence, was dressed. He then walked to his home two squares away. During the ten days following he had but little trouble, complaining only of soreness of the scalp and general weakness. He kept his bed part of the time, only being about the house a portion of each day. On the evening of the eleventh day he was seized with intense pain in the left side of the head, accompanied by fever, loss of appetite, nausea, and occasional vomiting. Four days later these symptoms were followed by a well-marked chill. Soon after the chill his wife

* Read before the Kentucky State Medical Society, April, 1883.

discovered that he had lost the power of speech and was paralyzed on the right side. Two days later I saw the case, and found his condition as follows: Pulse 100, and feeble; temperature 101°; surface of body clammy; pupils dilated; right side completely paralyzed. He made no response to questions, though seeming to understand what was said to him. I diagnosed the trouble to be intra-cranial abscess, situated beneath the seat of the external wound, and advised immediate trephining as affording the only hope of relief. I did the operation, assisted by Dr. Cottell, in the presence of a number of medical students. On re-opening the scalp wound, a grooved fracture, half an inch long, but involving only the outer table of the skull, was revealed. The trephine was applied directly over the seat of the fracture. No pus escaping when the button was removed, the membranes were punctured; but neither blood nor matter followed. The following day the patient died in coma. A post-mortem, made by Dr. H. C. Miller and myself, revealed the existence of an abscess, situated not, as I had supposed from the symptoms, especially that of aphasia, in the anterior part of the cerebrum, but upon the surface of its posterior portion. The abscess was an inch and a half in diameter, and contained about one ounce of pus. The rest of the encephalon appeared healthy.

J. L., twenty-three years of age, a fireman on a railroad locomotive, while standing on his engine was struck by the water-spout of a tank, and knocked, through an opening in the bridge, to the ground thirty feet below. Five minutes later he was found lying on his side, conscious, with a small wound on his forehead and a big gash on his left cheek. Near his head was a sharp-pointed rock stained with blood, which was supposed to have made the wound. With a little assistance he was able to rise and walk the distance of twenty-five car-lengths, when he was taken on a train to a neighboring station and his wounds dressed. He was then brought back to Jeffersonville, arriving there at noon the same day. He walked from the depot to his home, three squares away. The next day Dr. Fouts was called

to see him, and found him complaining of great soreness about the head and general weakness. On the third day he had a slight chill, followed by fever, headache, loss of appetite, and nausea. Two days later he had twelve convulsions in rapid succession, and began to lose the power of speech. The next day he had seven convulsions, and speech failed him entirely. Late on the evening of the sixth day I saw him with Dr. Fouts, when his condition was as follows: Pulse 80, and good; temperature normal; pupils somewhat dilated; expression listless; no paralysis, but complete aphasia; when spoken to, would mumble; scalp wound still open and discharging some pus. A depressed fracture of the skull could be distinctly made out with the probe. It was decided to expose the bone at the seat of fracture and remove the depressed fragment. Assisted by Drs. Fouts and Cottell, I operated as follows: Enlarging the original wound in the soft parts, so as to expose well the opening in the skull, I discovered the loose fragment which was depressed. I had no difficulty in getting a curved director under this and lifting it out. Dark extravasated blood to the amount of an ounce and a half immediately began to flow through the opening. On coming from under the influence of chloroform, the patient spoke distinctly and intelligently. He made a rapid recovery without one untoward symptom.

W. O. K., aged sixteen years, entered Sts. Mary and Elizabeth Hospital in June, ——, suffering from an injury of the head, giving the following history: Four weeks before admission he was struck on the head by a block of wood which had fallen a distance of thirty feet. He was severely stunned by the blow, but did not think he had entirely lost consciousness. Soon after the accident a physician saw him. There was no sign of paralysis that night. The next morning, however, he found that he had not perfect use of his left arm and leg. For some time there was great tenderness of the scalp and a considerable discharge of bloody matter from the wound, but no increase in the paralysis. If any change was observed, it was for the better. Four days before admission, or twenty-five days after the injury, he

began having intense pain in the head at the seat of the wound, accompanied by chills, fever, and sweating, and the paralysis steadily increased. On admission his temperature was 102°, pulse 112 and feeble, surface of body clammy. The wound occupied the center of the left parietal bone, and caused intense pain in the entire head. It was discharging slightly. A distinct depression in the bone could be recognized by the use of the probe. Intra-cranial abscess was diagnosed, and an operation advised to give exit to the pus. The following day, assisted by Dr. Cummins, and in presence of the University class, I removed the depressed fragment, an inch long and three fourths of an inch wide, which was so wedged in as to require the use of the trephine to get the elevator under it. On its removal pus immediately began to flow through an opening which was found in the dura mater, and fully one ounce escaped. The scalp wound was then brought together, except at its lower angle, which was left open for drainage. When he had recovered from the anesthetic the boy expressed himself as entirely relieved of the headache. He was cautioned against excitement of every kind or attempting to raise up in bed. On the seventh day after the operation, during the absence of his nurse, he got out of bed and walked to the commode, a distance of thirty feet. He had scarcely returned to bed, when hernia of the brain occurred. This was immediately followed by coma, in which he died eight hours later.

W. L., aged six years, was kicked to the ground by a frightened horse. His cries brought his mother, who found him upon his feet. With her assistance he walked to his home two hundred yards away. One hour after the accident I found the boy sitting in a chair, perfectly conscious, with an ugly wound over the left frontal sinus, from which blood and some brain matter was oozing. Fully a teaspoonful of brain substance had escaped through the opening. Assisted by Dr. McClanahan, I gave him chloroform, and examined the wound. The opening in the skull was almost round, and full two inches in circumference. Several loose fragments of bone were removed, and the wound in

the soft parts, throughout two thirds of its extent, brought together, the most dependent portion being left open for drainage. Antiseptic dressings were then applied, and bromide of potash ordered to secure quietude. The bromide I was never able to administer by the mouth; he very stubbornly refused to take any medicine; and being ungovernable, any attempt to force him was followed by so much excitement as to compel me to abandon it. Whenever he complained of pain in the head, or was very restless, the potash was administered by enema, with the happiest result. The local treatment consisted in the application of cloths wrung out of ice-water containing carbolic acid. He made a good recovery.

B., aged thirty, of Kentucky, was shot with a gun charged with buckshot by a man who was in a barn some twelve feet above him. One of the balls entered, or was supposed to have entered, the cranial cavity through a comminuted fracture of the anterior and upper fourth of the left parietal bone. The patient fell unconscious. No physician saw him for eight days. Meantime a cerebritis set in, and came near proving fatal. The wound slowly healed, and in four months the man deemed himself well enough to resume his work as farm-hand. During the two following years the skull injury re-opened on several occasions, and small pieces of bone were either picked out by forceps or fingers, or were floated out by the discharge. Throughout this period the patient did not suffer specially with headache, and certainly had no head symptoms so called. With the beginning of the next year, however, he became peevish, and was indisposed to work. Soon after he had a slight epileptic attack. He had much headache. The epileptic seizures grew more frequent until they came on every week, and would occasionally occur many times in one day. The bromide of potash, avoidance of all excitement, mental and physical, postponed the attacks to once a month—never longer than that. His behavior became a little eccentric, and from being naturally taciturn he was transformed into a regular chatterbox. After this condition of things continued nearly three years, he was sent to Prof. D. W. Yandell,

who, after careful examination, decided to explore the seat of the original wound. The time to do this before the University class was fixed, but a very severe and exhausting surgical operation which Dr. Y. had performed a moment before led him to ask me to operate on Mr. B. I made a free crescentic incision through the superficial tissues down to the slight depression which denoted the seat of the original fracture. A fibrous membrane, semi-transparent, as large as a finger-nail, filled the space from which the fragments of bone had previously escaped. This I carefully divided. Immediately underneath it, and lying in the dura mater, were several small fragments of bone and two small bits of lead. The patient recovered without a mishap. He had had no return of convulsions when heard from several months after. His head had ceased to ache, and his tongue had grown quiet.

Dr. D. W. Yandell exhibited the vault of the cranium of a woman who was trephined for depressed fracture about the center of the left parietal bone, in 1854, by Prof. Gross, when he occupied the chair of Surgery in the University of Louisville, Dr. Yandell remarked that in 1867 the patient begun to have epileptic convulsions, which continued to occur till her death in 1872. The dense fibrous membrane usual in such cases occupied the opening made by the trephine. On the inner table of the bone was an exostosis not larger than a pea. The dura mater immediately under this small projection was found at the post-mortem to be thickened and otherwise presenting the evidences of previous inflammation. It was thought reasonable to infer that the irritation caused by the seemingly insignificant little exostosis had given rise to the epilepsy. If this inference was correct, and epileptic convulsions really arose from so small a growth and so circumscribed an area of inflammatory disease, it is in striking contrast to some of the cases just reported by Prof. Roberts, and to many cases seen, no doubt, by almost every member of the Society.

In 1867 Dr. Yandell saw, with the late Dr. John O'Reilly, a

man who got a depressed fracture from a shot five years before. Three years after the injury he became epileptic. Dr. O'R. used the trephine. On the under surface of the button removed was an exostosis not much larger than that on the woman's skull, but it was so angular that it was almost sharp. The depression alone did not appear sufficient to produce the epilepsy; but when bony deposits occurred on the inner surface of the cranium the brain was no longer able to resist the combined causes and displayed its irritation in epileptiform convulsions. The complete recovery of this patient would seem to confirm the view expressed as to the cause of the epilepsy in the woman's case. And if she had been trephined for epilepsy as she had been on a previous occasion for fracture, it is hardly too much to say that she too might have been saved. Dr. Yandell also reported the case of a youth who, by the kick of a horse, got a fracture near the center of the frontal bone with what seemed to be only slight depression. Recovery speedily ensued. Two years later he was seized with epilepsy. The attacks, at first rare, became more and more frequent. His temper grew irritable and finally vicious. This state of things continued for four years. Dr. Y. now applied trephine. There was nothing noticeable about the button removed. The dura mater appeared much thickened over the spot. The patient had his last epileptic fit during the operation. He made a quick recovery. His viciousness disappeared, and he is now a useful citizen.

Dr. McCormack, of Bowling Green, said the thanks of the Society were due Dr. Roberts for the series of cases presented in his paper, because of the clinical points so well brought out in each, and especially on account of the important evidence they bore of the value of trepanning in treating this class of injuries. A case had come under his own observation which was interesting in this connection, and still more so because of the remarkable mental phenomena which followed the operation, presenting, as it did, all the features of a well-marked case of double identity. The history of the case was as follows:

Charles Williams, an American farmer, aged twenty-three

years, was brought to his office from the country, that he might examine him as to his mental condition, and testify before a jury which had been requested by his friends, who desired to send him to a lunatic asylum. When fifteen years of age, and while engaged as a "striker" in his father's blacksmith shop, he was struck on the head with a pointed hammer and felled to the floor; was unconscious for several hours, gradually recovered, and after a few weeks suffered no noticeable inconvenience from the injury. This occurred in Allen County. Two or three years later he came to the community in which he now resides, was married when nineteen years of age, purchased a farm shortly afterward, and all this time he presented no mental peculiarity which was sufficiently marked to attract attention. Six months before he was brought to the doctor he began to complain of pain and tenderness in the seat of the old wound, and about the same time began to exhibit indications of mental derangement. At first he was morose and sullen, but later became maniacal and difficult to restrain. His appetite was poor, his sleep was disturbed, and his general health had failed rapidly. Two men and the wife brought him to the office in an open wagon. His general condition was bad. He was much emaciated, cachectic in appearance, with furred tongue, pulse 110, temperature 98°. He was nervous, restless, and impatient of restraint, and presented all the symptoms of acute mania. There was a well-marked depression about the size of a silver quarter at the juncture of the sagittal with the coronal suture. The scalp in the vicinity of this depression was so exquisitely sensitive that it was examined with difficulty, and the examination gave great pain. His wife said that this pain and tenderness had been constant since the beginning of his mental trouble. The man was evidently in no condition to be sent to an asylum, and was sent to his home in the country.

On the following day, in the presence of Drs. Porter, Murray, Neal, and Meredith, the operation was performed. At first a section of bone was removed with a large trephine, and, as this did not include the whole of the internal depres-

sion, a second section was taken out which slightly lapped into this. Still a corner remained which seemed to press on the brain, and this was removed with bone-forceps, and smoothed with a rasp. The membranes were not injured, and the dura mater appeared healthy; the wound was closed except at the posterior part, which was left open for drainage. The recovery was rapid and the relief of the mental condition was immediate and permanent. He gained flesh rapidly, and in a short time resumed his work on the farm.

Immediately following the operation were developed those curious mental features which gave special interest to the case. The man seemed to be impressed with the idea that he had just recovered from the effects of the blow on the head, and had no recollection of any event of his life from the time of the injury until he was relieved by the operation. He said he did not know his wife, or that he had a wife, his neighbors were strangers to him, and his business transactions in connection with the purchase of his farm could only be understood after an examination of the deeds, and full explanation. He seemed to be entirely ignorant of his former surroundings, and had to learn the roads of his neighborhood like any other stranger. Most of his friends were skeptical in regard to these things, and many tests were made of their truth. His answers were frank and candid, but he always said he was totally unable to recall any event occurring in this period of his life.

Dr. McCormack admitted the possibility of deception on the part of the man, as there was in most similar cases; but when it was recollected that, while a man of fair intelligence, his education was very limited, and that he had probably never heard of a case of this kind, it was more difficult to believe that he could manufacture and be consistent in such a story as this than to believe the story itself. He said it was to be regretted that the man was not highly intellectual, and accustomed to describing his methods of thought, as the interest of the case would be greatly enhanced by minute mental details. The man's friends and neighbors all concurred in saying that there had

been a marked change in the man's general demeanor. While always industrious and sober, he had been of rather a noisy, turbulent disposition, which was in marked contrast with his quiet manners since the operation.

HEAD INJURIES, WITH REMARKS.*

BY S. E. MUNFORD, M. D.

I desire to present to the Society four cases of injury of the head, occurring in my practice during the past four years, which are, in some measure, illustrative of the variety of these hurts, with some remarks concerning them; and also to notice briefly some points with reference to operative procedures in fractures of the skull. If I may effect nothing else, I shall at least hope to quicken a livelier interest in this field of work.

CASE I.—A boy, aged fourteen, in a runaway received a fracture of the skull. He was picked up immediately after the accident, and, in a wholly unconscious condition, carried to a house. All the symptoms of compression were present. An effort was made to warm the extremities and restore consciousness, but a lapse of six hours found him in a profound coma. Drs. Blair and Kidd arrived and engaged in the management of the case. It was thought proper to raise a flap of the scalp, so as to learn the extent of the cranial injury. This done, a fracture of the right parietal bone, just above the temporal ridge, was disclosed. It was stellate in form, with deep central depression. As there was no loose fragment, the trephine was applied, after which the depressed bone was easily raised. It was noticed that the dura mater did not fully rise to the trephine aperture, and that it was devoid of pulsation—phenomena that may always be taken as suggestive of large clot between the skull and dura, or of contusion of the brain. In this case no clot was noticed;

* Read before the Indiana State Medical Society, May, 1883.

so the latter condition doubtless existed. Before the operation the breathing had been so slow and labored as to indicate speedy death. Immediately following it the respiration was noticeably improved, as was also the action of the heart. Other than these features no improvement was noticed, total insensibility existing until death, which occurred at the end of the fourth day. No harm was done to this fatally injured boy by the operative measure; on the contrary, the stertor was lessened, and his life no doubt thereby prolonged. The depressed bone, although driven much below the common level, was not a factor to the suspension of consciousness; and if we may rely upon the authorities, depressed bone, in itself, seldom occasions primary symptoms.

Case II.—A railroad engineer received a compound fracture of the left parietal bone in its anterior inferior angle, from a collision of engines. When seen, three fourths of an hour after the accident, his aspect was most deathlike. The symptoms were those of shock and compression of brain commingled, sensibility not being wholly abolished. After using some measures to restore the circulation, the wounds were examined and found, beside the compound injury to the skull, to consist of a cut to the bone extending vertically across the forehead, and a contusion of the scalp on right side of the head. The fracture was linear, and extended from a little above the anterior lower angle backward three inches. The lower fragment was depressed about one third of an inch. Partial anesthesia was produced by ether, the trephine used, and the sunken bone lifted without difficulty. A small clot was removed from the trephine opening, after which there was a free flow of blood from within the skull. A piece of styptic cotton pressed in the wound had the effect to stop the bleeding. As soon as the influence of the anesthetic had passed he recognized friends about him. He speedily rallied from the shock. But little febrile action occurred at any time in the case. Two features, however, occasioned some uneasiness: a marked aphasic condition which was noticed from the beginning, but largely disappeared after the second week,

and delirium occurring at night without fever after the wound had almost healed. The site of the wound and the supervention of aphasia bear further testimony to the localization of at least one of the faculties of the brain. Why there should have been delirium, where neither pain nor fever existed to suggest meningitis, was not clear.

The following cases are examples of secondary results of injury of the head:

CASE III.—A man engaged in a saw-mill fell from a height, the left side of the head striking a square oak block. The upper portion of the auricle was entirely severed. The scalp was extensively cut, and peeled up from the bone, and the skull fractured. The break extended from the coronal suture through, or nearly through, the transverse diameter of the parietal bone. Near the middle of this line of fracture there was a vertical seam joining the transverse line from below. The lower fragments were pushed in to about the thickness of the bone. When called to see him, eight days after the reception of the injury, it was learned that immediately following the accident there existed the condition characteristic of concussion, which gradually passed, and was in a few days succeeded by fever, pain in the head, and delirium. We found him violently maniacal, requiring day and night the presence of strong men to restrain him. The scalp was red and puffy, and was suppurating along its cut edges. The skull was perforated and the elevator passed under the depressed bone, but failed to lift it until an overlapping angle of bone was cut with Hey's saw. The dura showed a slight change by inflammatory action. No pus was discharged. It was not possible to close the inflamed and swollen scalp, and as the case progressed the scalp retracted, leaving a vast expanse of uncovered bone. The trephine hole was near the middle of this area, thus giving an opportunity to watch the process of repair of the opening in the bone. The dura mater for the first week pulsated in the bottom of the trephine cut in the usual way. After this time it was noticed that this membrane gradually receded, leaving the inner cut edge of the bone visible. A few days

more the advance of the granulating columns showed themselves at the margin of bone, and steadily crept across the exposed membrane and the walls of the cut bone, until at last the void was filled by this marvelous patch-work tissue. The repair consists in a thickening of the dura mater over a surface considerably larger than the aperture in the bone. This supplemental tissue, as is known, ossifies in exceptional cases. The rule is, the formation of fibro-cartilage. Within a day or so after the operation on this man, the temperature declined, the delirium began disappearing, and the case made steady progress to entire recovery. The exposed bone was not wholly covered until four months had elapsed. It is believed that the pericranium was saved by abstaining from frequent washings, and by cleansing the wound by gently flooding with tepid water, allowing no wiping or mopping with sponges. The tedious granulating process over the bared skull has doubtless been noticed by all who have seen such injuries. It behooves the surgeon, therefore, to save the scalp in all injuries of this structure, and to endeavor to have as early a union of its cut edges as is possible and admissible. Wiseman, after abusing a barber for cutting off a piece of the scalp of a "horse courser" and hanging it up in his office to show how great a surgeon he was, adds, "However ragged the integument may be, however ingrained with mud or sand, or any thing of the kind, you will replace it and leave it to nature to determine how much and which part is to be separated." The lesson of this case is, that the lifting of an offending edge of bone may cut short an inflammatory process which would otherwise go on to suppuration and death.

Case IV.—A young farmer, in firing a gun, received from an explosion of the breech a wound above the left eye. He fell to the ground, but with a little assistance walked to his home. He remained indoors for one week on low diet. In two weeks after the injury he was looking after his business, but began complaining about this time of pain on the injured side of the head behind the ear. A message finally came to the effect that he had convulsions. These occurred during the night. The next

day I saw him, in connection with Dr. West, who had the management of the case from the beginning. We found him in bed, but, so far as we could see, he was wholly rational and free from fever. The original wound of the head was healed, and the integument was neither angry nor puffy. The pain in the head which had harassed him for days had, he said, disappeared. We could not doubt, however, but that the injury of the head stood in the relation of cause to the spasms of the night previous. After directing cold to the head and an active cathartic, we left the house. We were scarcely started, when we were recalled, and told that he had another spasm. We found him convulsed with a true epileptic fit. Any farther delay of operative measures we believed inadvisable. The administration of chloroform was begun while he was still convulsed. After raising a semicircular flap of the integument, in the center of which was the original wound, a fracture was found extending from the superciliary ridge, upward and outward, one inch and a half. The upper margin was depressed nearly the thickness of the bone. After removing a wheel of bone by the trephine, it was found that the junction of the two plates had been notched, thus opening the frontal sinus. The depressed bone was with much difficulty lifted to the common level. No loose fragment of the external plate was noticed. The dura mater was but slightly changed from the normal appearance. No pus was discharged. The flap was laid in place, and healed, leaving a neat semicircular thread line of scar-tissue, which is, in truth, "a line of beauty." He recovered rapidly from the operation, and had neither convulsions nor pain afterward. There is a general impression that epilepsy only follows injuries in which the classical "spiculum" has been driven in. The offense in this case was the rough edge of bone, and the depression, it will be noticed, was not great. If left to itself, the result would likely have been suppurative meningitis, or, that escaped, permanent traumatic epilepsy.

Doubtless many deaths capable of being prevented occur from injuries of the head. The factors to this result may be

enumerated as follows: (1) Inattention to the lighter injuries; (2) abandonment of graver ones; (3) too great conservatism in the management of an intermediary class. "No injury of the head is too slight to be despised or too great to be despaired of," wrote Liston; and it is a truth whose teaching, if faithfully adhered to, would be worth many a human life. How often people come to us, having received a blow which contused or cut the scalp, whose wounds receive a little washing and perhaps a little stitching, but who are allowed to depart with no word of caution! The ordinary occupation is perhaps at once resumed. Rigors, fever, pain in the head, delirium, coma, death, are frequently the sequential phenomena of such neglected cases. Guthrie said that while it was doubtless true that the internal plate of the skull was often fractured by blows that inflicted no injury to the external table, yet in a practical point of view it was not well to bear it in mind, otherwise few receiving these injuries would escape the trephine. It were well for our patients did we proceed in the management of these hurts as if every blow which sent a patient to us had done violence of a serious sort. Not that they should be trephined, unless necessary, but watched. When we see cases of so desperate a character as to dispel hope, we should remember that a tamping bar three feet long has been driven through the human skull, and that Minie-balls have traversed the cranium and its contents from forehead to occiput without fatal results.

In that class of injuries between the lighter and graver, injuries involving lesion of bone and perhaps of the integument, which, by their nature, challenge immediate attention, and yet present a hopeful aspect, is the practice of the profession at large that which most tends to save life? If surgery is defective in this direction, it may, in apology, be said that no hurts of the body present so many complex and obscure elements as do head injuries. Hence it is we often find cases whose entanglements baffle the keenest sagacity, and for whose management no principles or established rules present themselves. Hennen comprehended this when he said, "The young surgeon who for the

first time witnesses a series of injuries of this description will at every step have something to unlearn; he will find symptoms so complicated, contradictory, and insufficient to give any rational clew to their causes; diagnostics, of the truth of which he had read himself into a conviction, so totally unsupported by the results of practice; and the sympathies he was led to look for as infallible accompaniments of certain states of disease so often wanting altogether, that he will probably be inclined to relinquish the hope of ever arriving at a correct theory, or at least he will enter the clinical ward with the pride of science considerably subdued."

I am aware that in this day, when there exists the subdued surgical sentiment, any thing like complaint against what is denominated conservatism is likely to be unpopular. But conservatism in surgery is a relative element. The practice which will save the limb or structure will, in head injuries, lift the depressed bone or evacuate the products of intra-cranial inflammation. True conservatism does not let alone. It tends to save, whether it be life or limb.

The axioms of surgery regarding operative measures in fractures of the skull are the evolutions of clinical experience, and are, in the main, doubtless correct in their teachings. But shall we invariably follow the teachings of these precepts? One declares that a simple depressed fracture of the skull, without symptoms of compression, shall be let alone so far as the bone is concerned. Another teaches that the same fracture, provided a wound of the scalp co-exist, may have operative treatment. I am inclined to the belief that an incision of the scalp is too slight a complication of the injury to be allowed to hinder the lifting of the bone, especially as we may call to our aid antiseptic measures. If there be a rough edge of bone or spicula impinging the dura, which is less tolerant than the brain itself of intruding objects, subsequent intra-cranial trouble is highly probable. The bone lifted, this danger is largely averted. The limited experience furnished by my own practice, with observations of the practice of others, leads me to believe that primary surgical

measures in fractures of the skull add little to the shock of the existing injury. I do not say that every case of fracture with depressed bone shall have operative treatment. No one may say, elsewhere than at the bedside, which cases shall and which shall not have such treatment. Professional sagacity face to face with its work is superior to any law or rule in surgery.

Suppurative meningitis with resulting compression of the brain from pus is a frequent issue in fissures and other injuries of the skull. No treatment for this trouble will avail save such as surgery may bestow.

Mr. Hewett teaches that in this class of cases we are only to operate where, in addition to fever and rigors, and to the local signs about the bone, there are also well-marked brain symptoms, coma, and, better still, hemiplegia. If we wait until these phenomena are present, and operate, we may at least feel that the operation did not destroy our patient. Arachnitis and brain disorganization are apt to put him "past all surgery." Mr. Pott, the great apostle of the trephine, found justification in the puffy tumor, the secession of the pericranium, restlessness, fever, slight rigors, pain in the head, and quick pulse, for perforation of the bone, and his record is five out of eight such injuries saved.

Timely operative treatment in injuries of the head is doubtless often withheld because of an existing prejudice against such measures. The danger growing out of the use of the trephine as a surgical procedure is, in my belief, much overrated. Opening the skull with a conical trephine in an ordinarily deft hand is in itself attended with little danger, and is an operation that should intimidate neither patient nor surgeon. Let timorous ones read the following from John Bell's Principles of Surgery: "I, the underwritten, Philip, Count of Nassau, hereby declare and testify that Mr. Henry Chadbourne did trepan me in the skull twenty-seven times, and after that did cure me well and soundly."

PRINCETON, IND.

Reviews.

The Pathology and Treatment of Diseases of the Ovaries. By LAWSON TAIT, F. R. C. S., Edin. and Eng., Surgeon to the Birmingham Hospital for Women and Consulting Surgeon (for Diseases of Women) to the West Bromwich Hospital, Fellow of the Royal Medico-Chirurgical Society, Member of the Surgical Society of Ireland and of the Medico-Chirurgical Society of Edinburgh, etc., Honorary Fellow of the American Gynecological Society. Fourth edition, rewritten and greatly enlarged. New York: William Wood & Company. 1883. Pp. 357.

It is now ten years since Mr. Tait published the first edition of his book, and in his preface to this fourth edition he announces that his greatly increased experience has caused him to change his opinions on some points, but has more frequently induced him to amplify what he has heretofore published. In the present, as in the past, he writes positive opinions; and while not failing to acknowledge the lead of other surgeons in undisputed cases, he is not slow to claim originality and leadership where he presents grounds to justify his claim; but it is not every confrère in this specialty that concedes to him all that he asserts is his. Such disagreements are not, with him nor with others, any disparagement of his qualifications as a discerner and executor of new things, nor of his ability to teach good things, both old and new.

Specialists will examine Mr. Tait's new edition for his freshest views touching a branch of medicine that is on a rapid advance in practical application; but the general practitioner will find it an excellent guide for all things that pertain to human ovaries so far as known. The first chapter deals with the anatomy and physiology of the ovaries, and announces that, notwithstanding the very great advances that have been made

in both within twenty years, our knowledge of each still leaves much for future determination. Subsequent chapters treat of the development and malformations of these organs, and then of the various pathological conditions that befall them, and of the present resources of science for their relief. The sixth and last chapter is entitled "Recent Extensions of Abdominal and Pelvic Surgery;" and the general practitioner who has skipped the gynecological and special surgical column of his medical journal for two or three years will find here something of a surprise in the nature, extent, and success of this comparatively new field of surgical cultivation. Early in the chapter are these words, "I give details of some of the cases in which I have performed operations which, until three or four years ago, I regarded as quite unjustifiable, but which I now regard as the legitimate outcome of our increased success in the removal of ovarian tumors." The author then lays down this surgical law in italics, "*that in every case of disease in the abdomen or pelvis, in which the health is destroyed or life threatened, and in which the condition is not evidently due to malignant disease, an exploration of the cavity should be made.*" And in support of this law he educes his own experience.

From November 1, 1880, to August 5, 1882, he performed one hundred and one ovariotomies, with ninety-eight recoveries, three deaths. From October 18, 1879, to September 29, 1882, he removed the uterine appendages for myoma in forty-five cases, with two deaths. From May 23, 1879, to October 12, 1882, he removed the uterine appendages for hydrosalpinx in twenty-four cases, all recovered. From October 11, 1879, to August 17, 1882, he removed the uterine appendages for pyosalpinx in twenty cases, all recovered. And he gives the "following list of operations of various kinds which have directly issued from the great advance in ovariotomy in 1878, all of which, with one exception, have been successful: Nephrectomy, one; nephrotomy, eight; cholecystotomy for gall-stone, four; hepatotomy for hydatids of liver, ten; laparotomy for pelvic abscess, twenty; laparotomy for abscess of spleen, one; lapar-

otomy for hydatids of peritoneum, four; laparotomy for chronic peritonitis, eight; laparotomy for acute peritonitis, two; laparotomy for removal of extra-uterine pregnancy, seven; in all, sixty-five." This catalogue sure enough does advertise great progress in abdominal surgery in the last five years, and intimates that still further advances are in the close future. J. F. H.

A Practical Treatise on Diseases of the Skin, FOR THE USE OF STUDENTS AND PRACTITIONERS. By JAMES NEVINS HYDE, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago; Dermatologist to the Michael Reese Hospital, Chicago; and one of the Physicians to the Infirmary of the Chicago Home for the Friendless. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo. Pp. 572.

"The increasing recognition of the gravity of many cutaneous disorders, and of the importance of their accurate study, is shown by the rapidly augmenting number of observers in this department of medicine, and by the numerous valuable contributions constantly made to it, both in this country and abroad. For the convenience of the general practitioner, it therefore becomes necessary, at shortly recurring intervals, that some one should attempt the task of presenting, in a comprehensive form, the results of the latest observation and experience." Such is the author's statement of the incentives that moved him to publish a new volume on the diseases of the skin, and the attentive observer of the progress of dermatological science will accord to him correct conclusions in the observations submitted in the quoted paragraph. It is not to the credit of the profession that so large a proportion of general practitioners are so inadequately informed concerning those external diseases which, being open to ocular inspection in addition to the means of investigating internal diseases, one would expect to find them in possession of the most complete knowledge. There is, however, in this connection something of rational apology in the statement

that it is because so few ordinary skin diseases lead to a fatal result that so many practitioners give them so little careful consideration. And beside this, there has heretofore been so much obscurity in the pathology and so much failure in the treatment of disorders of the skin that many a good doctor, after long wrestling with the vexatious problems that promised exactitude, and not finding it, has, in despair, dropped into the routine that was the practice of his preceptor.

But specialists are revising our knowledge of the anatomy of the skin and of its physiology, and with this necessarily comes different views of pathology and improved methods of therapeutics. In the volume under notice Dr. Hyde presents the anatomy of the skin under the light of Heitzmann's investigations, as set forth in his recent work on microscopical morphology, which is, in some important particulars, quite different from the teachings inculcated up to the present time. But throughout the entire volume the author has brought his conclusions out of the knowledge derived from the latest studies by himself and others devoted to this specialty, inclusive of Kaposi, who is the present accomplished dermatologist of Vienna, fitly following after the illustrious Hebra.

Dr. Hyde's method of arranging his subjects is his own, but he adopts the classification of Hebra with a modification that he deems of practical benefit, denominating it "a clinical classification of diseases of the skin;" but he also gives the classification of the American Dermatological Association, because so generally recognized as a good one on a scientific basis, both in this country and abroad.

The book is commended to both student and practitioner as one containing the gist of dermatological science as known to the best of its disciples, presented in clear and precise language, the author appearing to be ambitious to deliver his views with a a simple directness that shall be devoid of ambiguity, and to exhibit the moral courage of saying he don't know, when he lacks knowledge, making no effort to hide ignorance in clouds of fine-spun speculation.

There are sixty-six illustrative wood-cuts, two pages of bibliography, and a full index. The publishers' work is well done, even to noting a round dozen errata. J. F. H.

A Manual of Chemical Analysis as Applied to the Examination of Medical Chemicals: A guide for the determination of their identity and quality, and for the detection of impurities and adulterations. Third edition, thoroughly revised and greatly enlarged. By FREDERICK HOFFMANN, A.M., Ph.D., Public Analyst to the State of New York, and FREDERICK B. POWER, Ph.D., Professor of Analytical Chemistry, Philadelphia College of Pharmacy. Philadelphia: Henry C. Lea's Son & Co. 1883. 8vo. Pp. 624.

The explicit declaration in the above title of the character and purpose of the book may be supplemented by the following extract from the preface to the present edition: "The third edition of this work has been thoroughly revised, and to a large extent re-written, in order to make it comply with the present compass of chemical knowledge, and also with the recently issued new editions of the pharmacopeias of the United States and of the German Empire." These will convey to the reader the author's estimated status of the book; and to declare that their estimate is apparently well founded, and that the volume is a valuable one in its department, is all that time and space are afforded to say. There are nearly two hundred illustrations, and the publishers' work is well done. J. F. H.

An Index of the Practice of Medicine. By WESLEY M. CARPENTER, M. D., Assistant Pathologist to Bellevue Hospital, Instructor in the Pathological Laboratory, University of the City of New York, Secretary of the Medical Society of the County of New York, etc. New York: William Wood & Company. 1883. 16mo. Pp. 302.

Something over two hundred of the more common diseases, omitting syphilis and skin diseases, are here alphabetically ar-

ranged, briefly described, correctly diagnosed, orthodoxly prescribed for, and collected in a neat, gilt-edged pocket volume handsomely bound in flexible leather cover and back, with lap flap, adapted to be readily carried in the pocket. The printing is good, on thin, tough, clear paper, and there are as many blank leaves as printed ones alternating throughout the book, presumably to afford the novice an opportunity, when he has mastered the contents of the volume, to write out quite fully how inadequate he has found the work as an instructor in either the science or the practice of medicine. The book is apparently one of the best of its kind, but it belongs to a class that is always of doubtful utility. At best it can be but a reminder that a practitioner may carry with him when he calls on his patient; and if he has to consult it before he can intelligently prescribe, it will be an unreliable intelligence that he will prescribe by after such consultation. J. F. H.

Diagnosis of Ovarian Cysts by Means of the Examination of their Contents. By HENRY JACQUES GARRIGUES, A. M., M. D., Obstetric Surgeon to the Maternity Hospital, Physician to the Gynecological Department of the German Dispensary, Fellow of the American Gynecological Society, Fellow of the New York Obstetrical Society, etc. New York: William Wood & Co. 1882. 8vo. Pp. 112.

Dr. Garrigues begins his book by detailing an epitome of a discussion that occurred during the first meeting of the American Gynecological Society, wherein the value of the microscope in diagnosing ovarian tumors by an examination of their contents was considered, which showed a wide diversity of views on the subject by the participants. This is followed by a review of English, German, and French ideas on the theme, still showing a lack of uniformity in conclusions.

The author then describes the physical, chemical, and microscopical characters of the contents of ovarian and many other cysts, the tables of examined cases aggregating ninety-seven,

and he arrives at this conclusion: "The examination of the fluid from abdominal tumors affords very valuable aid to diagnosis. By studying the physical, chemical, and microscopical characters it is almost always possible to diagnosticate ovarian cysts, even without knowing any thing about the patient, and of course still more so when the result is combined with the other features of the case." J. F. H.

Physical Exploration of the Lungs by Means of Auscultation and Percussion.: A course of three lectures delivered by invitation before the Philadelphia County Medical Society. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine in the Bellevue Hospital Medical College, New York. Philadelphia: Henry C. Lea's Son & Co., 1882. Small 8vo. Pp. 83.

It was a handsome recognition of the eminence and worth of the venerable and veteran apostle of the physical exploration of the thorax, and one that did honor equally to the inviter and invitee, when the Philadelphia Society called the elder Flint from New York to give them lectures on the auscultation and percussion of the chest. These lectures were begun in November last, continued in December, and finished in January—one lecture a month. They contain about twenty-five thousand words; and it is safe to say that there is not in the English nor any other language the equal amount of clear, exact, and comprehensible information touching the physical exploration of the chest in the equal number of words.

Prof. Flint's language is precise and simple, conveying without dubiety the results of his careful study and ample experience, in such wise that the young will find it the best source of instruction, and the old the most pleasant means of reviving and complementing their knowledge in this behalf. J. F. H.

Clinic of the Month.

THE SUPERIOR VALUE OF THE BROMIDE OF SODIUM.—Henry M. Field, M. D., in the Boston Medical and Surgical Journal, writes as follows:

More than ten years ago Dr. Edward H. Clarke, in conversation with the writer, expressed his sense of the slight value of the bromide of sodium. That such was his established opinion would appear from the following extract from his public writings: "M. Voisin regards its (referring to the bromide of sodium) physiological action and therapeutical value as equivalent, or nearly so, to the bromide of potassium. Dr. Amory has been led by his experiments to regard it as a less valuable therapeutic agent than the potassium salt. It possesses no decided advantages over the other bromides just named, and therefore it is not desirable to substitute it for them in the treatment of disease." I had a very high respect for Dr. Clarke's decisions upon all therapeutic questions, and had I not already had an experience which led me to question his correctness on this point I should probably have set aside the sodic bromide and contented myself with a more or less routine use of the bromide of potassium.

But every year since has the more confirmed my opinion of the superior value of the sodic salt. I have tried to observe carefully, because I have to teach others as well as form conclusions for myself. On the other hand, although druggists of wide observation, as the Gilman Brothers and S. A. D. Sheppard, have assured me that the relative sales of the bromide of sodium have greatly increased within recent years, yet my frequent observation of the practice of the profession satisfies me that physicians in general know very little of bromide medication except as accomplished by the bromide of potassium.

A physiological study of the two salts in question supports the following propositions:

1. The bromide of sodium, because it is a sodic compound, should be more congenial, less disturbing, to the fluids and solids of the body than its potassic congener.

2. The sodium salt, in extended use, should be less depressing to the heart, all potassic salts after a time tending to produce cardiac depression.

3. The sodic bromide is less offensive to the taste, much less irritating to the stomach.

4. The bromide of sodium should have equal if not superior general therapeutic power with the bromide of potassium, since while the former has a bromine per cent of seventy-eight, the latter has but sixty-six.

To which, it may be added, my clinical experience has brought me to the following conclusions:

1. The bromide of sodium has equal therapeutic power, throughout the entire range of medication (with possibly an exception), with that of the bromide of potassium.

2. Not only this, but the bromide of sodium has *superior therapeutic value*, both from the greater mildness of its physiological impression and because of additional therapeutic applications which, were we confined to the potassic salt, would be inconvenient if not impossible.

Perhaps my practical experience with the bromide of sodium can be best detailed by a brief discussion, in order, of my physiological propositions, with an explanation of the last clause of the second clinical conclusion. And, to refer to the first proposition, *what should be has been*, as respects the two bromides. An unfortunate bromide impression is not likely to be reached, is not so soon reached, and, if present, does not appear in so intense a form under the use of the sodic as from corresponding use of the potassic bromide. This applies to skin eruption and certain other features of bromism which will be mentioned a little later.

Secondly, many authorities consider the continued use of any potassic salt in considerable quantities calculated to weaken the heart, not to speak of deleterious action upon the blood. I do not get this influence from the bromide of sodium as I believe I used to get it from the potassic bromide. For example, I do not consider the conjoined use of digitalis as important as I did when I used little else than the bromide of potassium.

Again, thirdly, there is a marked difference between the bromides as concerns convenience of ingestion, and great peference to be given to the bromide of sodium. Foul tongue, fetid breath, deranged digestion, anorexia, etc., are less common and less extreme under the continued use of the sodic compound. I have had these unfavorable conditions developed to troublesome extent, and seen them largely

disappear, without necessity of suspending the bromide medication—which it might have been hazardous to do—by simple substitution of the sodic for the potassic bromide previously used. Indeed, in one case, the graver symptoms of cumulative action and toxic impression having been rather suddenly declared under the use of bromide of potassium; namely, a degree of aphasia and conditions simulating locomotor ataxia. Here medication was hardly at all suspended, but substitution of the bromide of sodium was made in equal quantity, and the unpleasant symptoms speedily disappeared. The difference in taste between the two bromides may be a matter of no little moment. As I have often said to my classes, I would challenge any one having a slight cold (and so with sense of smell impaired), having had set before him two specimens of chemically pure chloride of sodium and bromide of sodium, to certainly determine by taste which was the medicine and which the culinary article. A corresponding difference of impression as regards the two bromides is made upon the stomach.

On the other hand, the bromide of potassium is sharp and stinging, and although it be freely diluted has much of the "urinous" taste which writers attribute to ammonium chloride. An already irritable stomach is quite sure to be irritated by it; but of this later.

Finally, waiving the fourth proposition aside from its assertion, we come to a few facts answering to the second clinical conclusion. And first, bromide of sodium is pre-eminently the child's bromide, as tannate of quinia is the "babe's quinine." It is much less disagreeable to the taste, and less likely to be objected to. In the case of the very young, children a few months or under two years of age, where small quantities of the remedy are all that is required, I have frequently followed the suggestion of the French, and seasoned the infant's food with the bromide of sodium instead of with common salt; for example, a few grains added to the milk several times through the day or at bed-time. The occasions when we must disgust the young with offensive and bulky remedies are far too many. It is a good thing to avoid them when we can. Again, the babe will seldom object to two or four grains of the sodic bromide in a teaspoonful of water, sweetened or not. The bromide of potassium is another matter altogether.

For nausea and vomiting of the adult, and especially in the nervous female, occasioned by whatever common derangement of stomach or reflected disturbance, I have found bromide of sodium in ice-water (a half dram to the half tumbler) one of the most effective of remedies. It must of course be drunk slowly, a little at a time, as the

stomach can receive it, and it is an essential condition that a little ice be kept in the solution until it is all taken. I remember in one instance treating effectively three such cases in the course of the week. They were all night calls, but I avoided going out by sending the bromide with instructions how to use it, and in one case also ice from my refrigerator. I know of no other one remedy, not even morphia in minute doses, that will accomplish so much; and morphia may be objectionable on account of after-effect, which the bromide never is. I should despair of treating this class of cases with bromide of potassium; the taste would often insure its refusal almost before it had reached the stomach, in a case where the vomitive tract of impression and conduction involves not alone the surface of the stomach, but also esophagus, fauces, and even to the very mouth; or if the stomach could be induced to receive it, its positively irritative effect would soon occasion its rejection, and leave the patient worse than before any medicine was taken. Similar criticism applies to the choice of a bromide for sea-sickness.

Whether bromide of sodium has equal power with bromide of potassium in the graver neuroses, I am uncertain, and have not decided this question for myself by experience. Voisin's opinion, as cited by Dr. Clarke, has already been quoted, and few speak with equal authority upon any thing concerning the therapeutics of epilepsy. Ramskill believes the medicinal power of the two salts, in respect of epilepsy, stands as three to two in favor of bromide of potassium. It may well be that as the potassic bromide is more foreign to the system, as already said, so it may be more powerfully alterative when set in opposition to a grave neurosis. The question is similar to that of the relative remedial power of the iodides of sodium and of potassium; and here observers are far from being in accord. But for the manifold conditions, presented by a general practice, which require recourse to bromide medication as a simple hypnotic, either upon the single occasion or for repeated use, as a sedative and calmative in various nervous conditions, as an anti-spasmodic in mild chorea or pertussis, as a "comforter" (Clarke) in pneumonia and typhoid fever, as calculated to mitigate or remove the unfavorable impression made upon the sympathetic by opium and morphia, in all these and allied conditions I have found bromide of sodium capable of accomplishing all that could be accomplished by bromide of potassium, and frequently in a much more gentle and kindly and unobjectionable manner. Indeed, so emphatic has my experience been in this particular that whereas formerly I took up the sodic bromine with hesitation, the occasions nowadays are but few where I use any other.

THE HOT-WATER RETROJECTION IN THE TREATMENT OF GONORRHEA.—H. Holbrook Curtis, M. D., writes, in the Medical Record, April 21, 1883:

During the past twenty years in no disease has there been less advance made therapeutically than in the treatment of simple gonorrhea. Of late there have appeared in the London Lancet many articles upon this subject, but no especial claim has been advanced for any method that will effectually abridge the orthodox three weeks' limitation of this troublesome difficulty. I propose, without entering upon the discussion as to the probable bacterian origin of the malady, to explain a course of treatment that I have employed for two years with very excellent results.

Endoscopic examination reveals that a current of hot water passed continuously through the urethra primarily congests and secondarily renders anemic the mucous membrane, in the same way that a hot bath affects the fingers. It is observed also that the urethra, after being acted on for some time, will endure water of a temperature that can not be tolerated by the hand. Taking advantage of this fact, I have arranged an apparatus by means of which one is enabled to pass several quarts of hot water through the urethral canal from the prostatic portion outward, increasing all the time the temperature of the water until the thermometer ofttimes indicates 180° to 190° F. I have repeatedly passed ten quarts of water from behind forward in this manner, continuing the retrojection for some time after the point of toleration has been reached. This varies much in different persons. It remains then to pass a mild astringent solution through the same catheter that has been employed for the retrojection. Preferably I use a suspension of iodoform in a glycero-tannin solution in the following proportions:

℞ Acidi tannici, ... } ℥ij;
Iodoformi, ... }
Glycerinæ, ... ℥j;
Aquæ, ... ℥iij.
Sig. Heat, shake, and inject.

After the injection the catheter is withdrawn, and the patient is directed to return in twelve or twenty four hours, as the case may warrant.

As I intend shortly to publish the histories of some twenty cases of gonorrhea and gleet that have been treated in this way, I will here but briefly outline the method and results.

In twelve cases of undoubted acute gonorrhea the discharge has been entirely checked in three days. In two cases I have succeeded in aborting the disease by one prolonged (ten quarts) thermo-retrojection. In six cases the disease lasted six to ten days, while a case of chronic gleet that had made the round of the profession for nine months succumbed in seven days to dilatation and retrojection.

It has been noticed that cases that have been treated for some time with strong mineral injections do not respond nearly as quickly to the hot-water method. I have yet to see, however, a "fresh case" of gonorrhea in which no previous injection has been employed that will not recover within a fortnight if the retrojection is properly administered.

From a careful study of more than forty cases I claim for hot retrojection—

1. The course of the disease is shortened by at least two thirds, making the average limit of the case—viz. stoppage of the discharge—nearer one week than three.

2. The discharge immediately changes from a purulent to that of the nature of gleet, and is reduced to a very small quantity.

3. There is absence of chordee and pain in passing urine.

4. Stricture as a sequel is improbable.

5. The usual inconveniences of the disease are done away with.

A brief description of the apparatus employed is as follows: An ordinary wooden arm-chair is half-mooned in the front of the seat to admit a tall cuspidor. A pulley is rigged on the ceiling, by means of which a tin pail with a lamp beneath is elevated. A rubber tube, provided with a stop-cock and connection, leads from the pail, and at any time may be fitted to an ordinary No. 8 English flexible catheter. The necessity of having a catheter with a bulbous end, to prevent water passing into the bladder, is purely imaginary. I would also state that an ordinary Davidson's syringe may be used, the patient giving himself the retrojection from the pail on a chair beside him. This is not as convenient, however, as the gravity apparatus. When the water is of the proper temperature, say 120° F., the catheter is vaselined and introduced to within an inch of the prostate, connected with the rubber tubing, and the pail elevated to such a height that the flow is brisk. The lamp under the pail will keep the temperature of the water slowly increasing. The patient holds the catheter in position, and may read the morning paper until the water becomes uncomfortably hot. The lamp is then extinguished, and the retrojection proceeds at the point of toleration. After this has gone on for a sufficient time, a syringeful of the *injection* formulated above is thrown in and

the catheter withdrawn. If the patient is unable to come back at once, give him the same prescription for urethral injection, or slightly modified to suit the particular case, with directions to use it twice a day until he can return. As an adjunct to this, the only internal treatment I employ is bicarbonate of soda in five-grain compressed tablets, to take ten daily. Heretofore my cases have been confined to private practice; but recently, at the kind invitation of Professor Sturgis, I had an opportunity to demonstrate this method at the Charity Hospital, where, I am told, the results have been so gratifying that Dr. Sturgis has promised to compile the statistics in regard to this mode of procedure, which seems so rational that it will undoubtedly supersede the ordinary injection treatment.

Several writers have advocated warm-water "irrigation" of the urethra in gonorrhea, and have claimed more or less success for their methods; but no one, to my knowledge, has shown any statistics that can compare with those obtained by prolonged progresso-thermal retrojection. More than a brief outline of the subject would be too lengthy for an article of this kind; but there is such a field for experiment afforded in this direction, I take this opportunity of placing some fragmentary data before the profession.

RHEUMATIC ENDOCARDITIS.—T. J. MacLagan, M. D., thus writes, in the British Medical Journal:

To one or two points in connection with the above subject, touched on in Dr. Sansom's Lettsomian Lectures, published in a recent number of the Journal, I would like to direct attention.

In speaking of rheumatic endocarditis Dr. Sansom quotes and indorses the two practical reasons which I give for the failure of the salicyl compounds to counteract the cardiac, as they do the arthritic, inflammation: first, that the cardiac mischief has generally commenced before the patient comes under observation; and, second, that rest, which is essential to the recovery of an inflamed organ, and which is easily got in a joint, is unattainable in the heart. The first reason makes prevention impossible; the second is a bar to successful treatment. But, though this is true, it does not express the whole truth.

That a joint generally recovers from rheumatic inflammation, and that the heart does not, is a statement which expresses the broad results of clinical experience, but expresses them in a manner which, from a pathological point of view, is bald and misleading. The truth

is (and striking as the statement may appear, it is absolutely correct) that every thing which recovers in a joint recovers also in the heart. The one structure in the heart which does not recover, the endocardium, is also the one which has no analogue in any of the structures of a joint. In studying the pathology and treatment of rheumatic endocarditis it is essential that this point should be kept before us; if we fail to do so we are sure to fall into error.

The parts which suffer in a joint in acute rheumatism are the fibrous ligaments and tendons and the synovial membrane. The parts which suffer in the heart are the fibrous rings and valves, the endo- and peri-cardial membranes, and occasionally the muscular substance.

The fibrous rings and valves are similar in nature and function to the fibrous structures of a joint. Each is apt to be the seat of rheumatic inflammation, and in both this inflammation is generally recovered from.

The pericardium finds its analogue in the synovial membrane. Each is very vascular, each secretes a lubricating fluid, and each has for its function the facilitating the movements of a solid body. Each too is apt to be the seat of rheumatic inflammation. In each the inflammatory process tends to spread; and in both the tendency is to recovery.

The endocardium has no analogue in a joint. There is nothing in a joint which bears the least resemblance to it, anatomical or physiological. It is a non-vascular membrane in which inflammation can not, and as a matter of fact does not spread. In nature and function it is identical with the lining membrane of the blood-vessels, with which it is structurally continuous.

When it is affected in acute rheumatism there is no general inflammation of its surface such as is found in the pericardium and synovial membrane; the mischief is limited to a small portion of one surface of the affected valve. I have elsewhere shown that the occurrence of the lymphy deposit which constitutes the endocardial lesion in acute rheumatism and its limitation to one particular portion and to one surface of the valve are to be explained not by the direct action of the rheumatic poison on the endocardial lining but by the mechanical rubbing against each other of valvular segments, whose deeper fibrous structures are the seat of rheumatic inflammation and thickening. This thickening of their fibrous structure it is which makes the valves rub; and the rubbing it is which irritates and roughens the membrane that covers them externally. The inflammation and thickening of the

fibrous structures of the valve may be recovered from. What is not recovered from is the roughening of and the lymphy deposit on its non-vascular endocardial covering. This is not recovered from because the continued action of the valve keeps up the rubbing and mechanical irritation, and because the want of blood-vessels in the endocardium prevents absorption. This is a condition over which no drug could possibly exercise any control. It is directly of mechanical and only indirectly of rheumatic origin.

But it is by no means certain that we may not in some cases, by the early and free administration of the salicyl compounds, prevent the inflammation and consequent thickening of the fibrous texture of the valve, which is the origin of all the mischief. If we see a case early enough, and give these compounds freely enough, we may prevent the heart from suffering as we undoubtedly do prevent joints from suffering. In no given case, indeed, can we be sure of having got this result; for the absence of heart-mischief can never be demonstrated to be due to the treatment. The possibility of such a result, however, is worth striving for, especially as the means of attaining it are also those called for in the interests of the joints. What is wanted is the speedy arrest of the rheumatic process. This object can be attained only by giving one of the salicyl compounds in large and frequently repeated doses.

This leads me to remark that my recommendations in this respect have not been acted up to. What I recommend is that from twenty to forty grains should be given every hour for six hours, or until pain is relieved (which it generally is within that time), and that the same dose should then be given every two hours till the pain is gone and the temperature at or near the normal (which is generally the case within twenty-four hours). After that the same dose is given at widening intervals of three, four, and six hours for ten to twelve days.

But, instead of giving it thus freely and largely, most observers are content to give only from fifteen to twenty grains every three or four hours. That is quite an inadequate dose and not nearly enough to give the full curative effects of the drug. I would again urge the use of the dose which I recommend. I do not exceed my right in asking that my treatment should be carried out in all its details before its results are subjected to criticism.

Salicin is the preparation to which I give preference, not because I regard it as superior to salicylate of soda as an anti-rheumatic, but because it may be given in large and frequent doses without causing such disturbance of the system as not unfrequently follows the use of

the salicylate, and necessitates its suspension. My experience too is that those treated by salicin (which is a bitter tonic) convalesce more rapidly than those treated by the salicylate.

There is an impression abroad that it is very expensive. It is not so. Two of the chief English manufacturers of it have told me that they are prepared to supply it to hospitals and dispensaries at 10s. 6d. a pound. Convalescence is so much more rapid under its use that I am not sure that it would not in the long run prove cheaper than salicylate of soda.

But whichever is employed, let it be given in large and frequent doses. I make this appeal in the interest of the heart as well as of the joints. Let every case of acute rheumatism be regarded and treated as one in which heart-complications may possibly be prevented, and it is probable that in some cases they will be prevented. But every hour is of importance, for it needs no argument to show that the danger to the heart is less in a case in which the course of the disease is arrested within twenty-four hours than it is in one in which three or four days is expended in the process.

The fact has never been accepted by the profession that the course of acute rheumatism may in many cases be arrested within twenty-four hours of the time that treatment commences. The recognition of that fact is the keystone to all possible success in the prevention of cardiac complications.

TREATMENT OF DIABETES MELLITUS.—James Tyson, M. D., writes in the Medical News upon this subject as follows:

Whatever may be the difficulties in the way of explaining the phenomena of diabetes from the stand-point of digestive derangement, that some such relation exists is shown by the result of *treatment.* For by far the most frequently successful plan of treatment is that which excludes saccharine and farinaceous articles from the diet. It occasionally happens that this fails to relieve the symptoms, and when this is the case we may infer that some serious lesion of the nervous system is at the bottom, or more likely, perhaps, that the liver has become secondarily so much altered that it can not resume its functions, and that now even albuminous foods are being converted into sugar. Of the selected food, that which gives the most satisfactory results is a diet of *pure skimmed milk*, or butter-milk. Our patient has been carefully tested on this system of diet. On referring to the notes, I discover that on October 30th he was passing fifty-six ounces

of urine, of a specific gravity of 1029, and containing eighteen grains of sugar per fluidounce. On the day before this he passed seventy-six ounces, specific gravity 1038 and containing twenty-three grains of sugar to the fluidounce. On the thirtieth day he was placed entirely upon a milk diet, and we had an immediate diminution in the amount of sugar passed. On November 1st there were only ten grains of sugar per ounce; the amount of urine passed in twenty-four hours still remained at fifty-six ounces. Replacing him upon a mixed diet, immediately the quantity of urine and the proportion of sugar rose, to be again reduced on restoring the skim-milk diet.

It is found sometimes that a patient is not able to bear a milk diet, although this occurs less frequently than might be supposed. Pure skimmed milk is to be preferred, chiefly because of its easier assimilation. Some observers, of whom Dr. Donkin is the chief exponent, claim that the skimmed milk has a special curative action, but I can not see any reason for this. All that is removed from it by skimming is the fat, and fat is not converted into sugar in the liver. It is most interesting to observe that under the use of large quantities of milk how much less urine is passed than fluid ingested. The body weight can easily be maintained on a milk diet, although it is impossible to lay down a rule as to absolute quantity required. I have known the weight to be maintained by two quarts per day, and I have known five and seven a day to be necessary. The milk is best administered at stated intervals and in fixed quantities. I always begin with eight ounces (an ordinary tumblerful) every two hours, increasing as required.

If a milk diet can not be borne, a restricted diet can be obtained, which is better than a mixed diet. A purely albuminous diet is almost unendurable for any length of time, but there are certain vegetables which contain but a small amount of sugar-producing substance which may be added to meat. Such are the "green" vegetables, including spinach, cabbage, tops of celery, green peas, beans, etc., as well as the acid fruits, and by a diet such as this the most surprising results may be obtained. It appears that the vegetable sugars, as those found in berries, are more easily assimilated than cane sugar. Even where a skim-milk diet is well borne, my practice, after the sugar has disappeared, is to gradually add other articles, in the shape of oysters, game, and green vegetables, watching the urine for any return of the sugar; and it is always important to keep a case under observation for some time after sugar has disappeared from the urine.

An article of food which is much missed by some is *bread*, and it

is scarcely necessary to say that it is one of the most objectionable, because of the large amount of starch it contains. And I regret to say that I have not found gluten bread a satisfactory substitute. A recent experience will illustrate. I have now under my care a lady who had been for nine months under treatment for diabetes before I saw her, but in whose case the pure skimmed milk had never been tried. She had finally, in despair of recovery, been allowed to take any thing she wanted, and when I first saw her was drinking a quart of champagne daily to quench her thirst. It is needless so say this was discontinued, and she was put upon a pure skim-milk diet, and an unlimited amount of Apollinaris water. In ten days the sugar had disappeared, and shortly thereafter I permitted the gradual addition of other articles of diet, including green vegetables. All went well until she asked to be allowed to take some gluten bread, which I permitted. In three days I examined the urine, and sugar was again present. The gluten bread was discontinued, and in three days the sugar had disappeared. The resumption of gluten bread was followed by the return of sugar, and its withdrawal by the disappearance of the sugar. Such an experiment is, I think, conclusive. Of course it is not claimed by the makers of gluten flour that it is completely free from starch, but as it is already a rather uninviting food in its present state, the inference is that when it is entirely freed of starch the bread made from it will be scarcely tolerable. At the same time, it must be admitted that the gluten bread contains less starch than the ordinary wheaten bread, and there may be cases in which the starch of the former is assimilated, when the quantity in the latter could not be. The same may be said of the so-called "bran bread," made of unbolted flour. With other substitutes for wheaten flour, as the almond flour of Pavy, bran flour, inulin, etc., I have had no experience.

Are drugs of any use in the treatment of diabetes? I believe they are, although if compelled to rely upon drugs or diet alone, I should prefer diet. The most efficient remedy is probably *codeia*, although I am almost afraid to say this, for a few months ago I should have given the palm to *ergot*, and until recently I have always used it first. The use of ergot is based upon scientific principles, since it is well determined that it exerts a contractile influence upon the walls of blood-vessels, thus counteracting hyperemia. I have frequently used it, and have no doubt whatever of its efficiency. The best preparation is the fluid extract, which is given in doses of from twenty drops to a fluid-dram four times a day. Codeia is not a new remedy in this disease, having been suggested by Dr. Pavy fifteen years ago. We have found

marked results from its use in the case before us. The plan I usually adopt is to begin with half a grain three times a day, gradually increasing the dose, watching its soporific effects, as well as that upon the pupil. I have given patients in this house as high as ten grains a day, and fifteen grains a day have been given. In this patient, after giving one and one half grains a day for a few days, we were struck with the smallness of the pupil, but on discontinuing its use for a short time we discovered that the patient naturally had a very small pupil.

You may ask, Have you ever cured a case with codeia? I can not say I have; possibly, perhaps, because I should be afraid to rely solely upon it or any other one drug. But such cases of recovery are reported. As is the case with all diseases difficult to cure, there is, in addition to those named, a long list which have been put forth as cures. *Bromide of potassium*, also an old remedy, has recently been again brought forward by the French school as peculiarly efficient. I can easily understand how, in a certain class of cases, it would be of value, as those due to hyperemia of the brain, cases which may be characterized as nervous. We know that emotional causes are often at the bottom of diabetes. Both mental anxiety and physical fatigue have been known to produce the disease, and when purely emotional causes have operated, the bromides may be beneficial, but I have never found them so.

Within the last few days the medical journals have published the treatment of Dr. Clemens, of Frankfort-on-the-Main, by a solution of what he calls *brom-arsen*, which is probably a bromide of arsenic. Dr. Clemens bestows the most extravagant praises upon the remedy; so extravagant, indeed, that I mistrust it, although arsenic itself has long had a reputation in the treatment of diabetes, and not without reason. I shall, however, make an early test of it. He makes it by adding bromine and arsenious acid to glycerine and water, in such proportions that one drop represents one forty eighth of a grain of bromide of arsenic. Clemens recommends it to be given, along with a selected diet, beginning with one drop three times a day and gradually increasing until eight or ten drops are given per day. He gives it in a given quantity until it ceases to have an effect, and then he increases it, one drop at a dose, until, as he claims, the disease is cured. He also recommends the use of the *constant current* from twenty to twenty-four cells, one pole being placed at the nape of the neck and the other over the liver. This has been recommended by other German therapeutists. I believe I have tried most of the other numerous remedies recommended in the books for diabetes, but have found them valueless as to specific effects.

Certain it is that we must make different classes of cases of diabetes, and we should never begin treatment until we have as nearly as possible classified our case in accordance with its course. There are cases which can be easily cured by a selected diet; others in whom, while a cure is apparently impossible, the disease may still be kept in abeyance for years, and the patient is practically well. Others again have had sugar in their urine for many years, and seemed not to be seriously affected by it. These are generally stout persons and past middle life. Clemens says, in the article referred to, that the disease in thin, spare persons, is generally due to some nervous lesion, and in stout persons to defective assimilation, and in this he is not far wrong. In other cases still, all treatment seems unavailing. The amount of sugar passed may be reduced by treatment, but the patient does not gain any strength. But I believe there are comparatively few cases which, if discovered sufficiently early, are not amenable to treatment. The disease is occasionally overlooked until it has existed for some time. It is well known that it is very much more serious in young persons—say under twenty years of age—than in adults. Yet within the past two years I have known a young girl of twelve years, under the care of one of my professional friends, recover completely.

Diabetic patients should be careful about permitting any surgical operation. One of the terminations of the disease is gangrene, to which there is a peculiar tendency, and any operation is apt to be followed by gangrene. A year ago a diabetic under my care in this house was blistered upon the foot, and serious sloughing followed. Cataract is not an infrequent complication, but the operation is not to be recommended, for the reasons above given.

INTRA-UTERINE INJECTIONS IN THE TREATMENT OF PUERPERAL SEPTICEMIA.—T. Gaillard Thomas, M.D., in New York Medical Journal, March 31, 1883:

The following case seems to me to illustrate what should be the accepted treatment of puerperal fever, or puerperal septicemia, at the present day. The case was that of a lady in the higher walks of life whom I was called to see, about a month ago, in consultation by her physician, a man of wide experience. She was a primipara, was taken in labor at four o'clock Sunday afternoon, and at nine o'clock in the evening was delivered of a female child, without any difficulty or assistance. Her physician examined the external genitalia carefully, and found no tear whatever. The nurse was instructed to syringe

out the vagina carefully the next day with carbolized water, which she did. The first forty-eight hours passed by without any bad symptoms at all, but, on visiting her on Tuesday morning, the physician found a temperature of 101° F., and in the evening it had risen to 102.5°. The next morning, the morning of the fourth day, the temperature was 103°, and the patient began to complain of very severe pain in the right iliac fossa. There had been no chill. At five o'clock in the afternoon the temperature was 106.5° in the mouth. The patient's appearance became wild, as of one who was about to have puerperal mania; the skin was hot, and she was crying out with pain, although she had received a good deal of morphine.

Having now been called to see the patient, I took the temperature in the mouth myself, and confirmed the record of her physician, that it was 106.5°. The pulse was 145. Making a vaginal examination, I found a bilateral laceration of the cervix uteri extending nearly up to the vaginal junction. Probably this extensive laceration partly accounted for the rapidity and the ease of the labor as occurring in a primipara. I urged that the uterus should be washed out with carbolized water at once, but her physician had never seen the method practiced, and was strongly prejudiced against it; he finally consented only because it was apparent that unless something decided was done the patient would soon die. Using the Chamberlain tube and the Davidson syringe, Dr. Jones, and afterward Dr. McCosh, continued to wash out the uterus with carbolized water every four hours during the night, and the next morning the temperature was found to have sunk from 106.5° to 101°; the pulse had fallen from 145 to 120; the patient, who had been given opium quite freely during the night, declared that she was very much relieved. Indeed, the relief had been so extraordinary that they began to believe that the danger was not real at all; that some exceptional circumstance had occurred, and that there was no septicemia. The uterus was now washed out at longer intervals, but at once the temperature went up to 102°, 103°, 104°, and 105°, and the patient again began to look maniacal. The uterus was now washed out every three hours, opium was freely administered, ten grains of quinine were administered every eight hours, ice-water was passed through a coil of rubber tubing placed over the abdomen; and as long as this treatment was kept up the temperature did not rise above 101° or 102°; but so soon as they ceased to wash out the uterus the temperature at once rose to 104°, and at times to 105°. This fact was proved by repeated trials.

After this treatment had been continued for ten days, a physician

remaining with the patient day and night, giving the injections every three hours, and thirty grains of quinine during the course of the day, it was believed to be time to stop it; but in less than twenty-four hours the temperature again rose to 105°. I mention the amount of quinine which was being taken particularly, so as to prove positively that there was nothing of a malarial character in the case at all. On the sixteenth day after delivery, the tenth day after the commencement of the high temperature, the intervals between the uterine injections were extended from three hours to four, then to five, six, and seven hours, and finally they were discontinued altogether, and at the same time the administration of quinine was given up and the coiled tubing was taken off. Opium was continued in small doses for a while longer, and the patient recovered entirely.

I wish to contrast this case with another which I saw just before—that of a woman who had been recently delivered of her third child. When I was called to see the patient the temperature was 106°; she had been taken with violent pain in one iliac fossa, and had been put five days before pretty profoundly under the influence of opium, and a blister had been applied over the whole of the abdomen. Large doses of quinine had likewise been administered. When I saw the patient the use of intra-uterine injections was begun at once, but the patient lived only twenty-four hours, and died in a state of coma.

It seems to me that the time has arrived when puerperal septicemia should be treated upon just as simple a plan as septicemia of any other kind is, namely, by washing with some antiseptic fluid the surface where the disease originates—some fluid which will remove the poisonous material which is being absorbed, and also, so far as possible, neutralize its poisonous qualities. In brief, I would say that puerperal septicemia, with our present light on the subject, should be treated in the following manner: First, wash out the uterine cavity completely with some antiseptic fluid; second, quiet all pain by opium; third, get the peculiar influence of quinine upon the nervous system; and, fourth, keep the temperature, at all hazards, at or below 100° by the methods which we now possess. Three years ago, at the American Gynecological Society, which met in Baltimore, I took the ground which I take to-day regarding this subject, and only one gentleman in the entire society supported my view. Every other member who spoke referred to the dangers of introducing air into the uterine sinuses during the injection, etc. But I believe that the dangers attending the use of the injections are counterbalanced by the benefits to be derived. I do not think there is the least probability that

air will be introduced if a tube of large size—as large as the finger—is used. But when a catheter is employed there is some danger of inserting it into a sinus and introducing air and fluid together directly into the vessels.

Massage with Successful Results in Phlegmasia Alba Dolens (By Kochman, Strasburg).—Frau Shaw, convalescent from puerperal fever, again became suddenly sick on the evening of the 30th January, 1883, with the appearances of fever and pain in the left leg, which increased toward morning. K. found upon examination, February 1st, temperature 101.3° F., pulse 96, the left leg very edematous throughout its entire length and very painful, under Poupart's ligament in the fossa naviculari a hard tumor, the size of a pigeon-egg.

The diagnosis was phlegmasia alba dolens as a result of thrombosis of the crural vein. Departing from the usual mode of treatment, with the exception of a laxative favorable in all such cases, the author employed massage with remarkable results. First, the left leg was laid upon an inclined plane, with the feet higher than the head. Then K. kneaded the limb, beginning with the foot, at first with gentle pressure, later somewhat more energetic, always paying special attention, however, to the inner muscles of the thigh, to the adductors, which had become as large as painful, and by their increased weight pulled upon the tumor. Upon them massage was made from below and within, upward and outward, and afterward the whole were raised so high by means of a sand-bag placed beneath that they were somewhat higher than the femur and the tumor formed by the thrombosis of the vena cruralis. In consequence of the relaxation of the swollen adductor and skin thus produced, circulation was better and the pain which had been very great ceased.

Surprised at the result of the first trial, Kochman kneaded the limb a second time the same day, followed the massage, however, by a Priessnitz bandage; he raised the foot upward with care, bandaging it with bandage a hand-breadth in width, then covered it as closely as possible with silk, and ended with a padded bandage. The next morning found bandage and bed

dripping wet, the swelling had gone down to a remarkable extent in the leg, only the adductors presented edema, and they only to a slight extent. While the patient remained quiet there was no pain and temperature was normal. The tumor had decreased to a marked degree, and the author now ventured to gently knead it as he had not done before, lest emboli should be formed. In the evening the same treatment was repeated, and a cup of inf. herb. jaborandi was given to promote perspiration.

On the fourth day after the beginning of the treatment the patient was out of danger; no pain, and the tumor only one third its original size. To-day, after twelve days, the tumor has entirely disappeared; the patient has gotten up and walked about with the aid of a cane. General condition good, color has become fresher, and strength increasing.

While the author recommends this method, it must not be forgotten that massage of the thrombotic spot demands extreme care and should only be made after the third sitting, and then very gently, so as not to give cause for the formation of an embolus by breaking the point of the thrombosis projecting into the vessel. (*Memorabilien.*)

Chloral Poisoning.—What are the remedies to be employed in acute chloral poisoning? They are especially those designed (1) to sustain the action of the heart, such as ammonia and brandy; (2) to keep up the breathing by artificial respiration, if needed; (3) to keep the patient warm; and (4) to use electricity as a cutaneous stimulant. Thus far you would treat a case as an ordinary one of narcotic poisoning. But is there any remedy that will counteract the depressing effects of the chloral upon the nervous centers, and particularly the respiratory center? Yes; the remedy for this purpose is strychnia, which antagonizes the chloral. It may be used as we gave it here, hypodermically, one sixtieth of a grain every three hours at first; and it would have been given oftener, but it was not needed. Strychnia therefore is indicated as the physiological

antidote. It stimulates the centers which have been depressed by the chloral. When recovery takes place, it is usually rapid.

What should be the treatment of chronic chloral cases? Suppose that a patient like this says that the habit is growing upon him, and comes to you for advice, what course would you pursue? I would answer that you must reduce the dose gradually. As large doses of chloral are only given exceptionally, there will be less difficulty on this score than with opium; but as you reduce it I would strongly advise you to give strychnia or nux vomica for its effects on the nervous system. It antagonizes the effects of the chloral, and acts as a tonic at the same time. Those nervous centers which are reduced in their activity by the paralyzing effects of the chloral are stimulated by strychnia. If you use strychnia you may stop the chloral almost at once without any bad effects being observed. I had a case in point last summer. A gentleman who had been taking chloral for some time found himself very weak, his will-power impaired, and he felt miserable. He determined to stop off entirely. He went to Atlantic City without a single grain of chloral. He took constant out-door exercise. He was sleepless for a time, but he was able to overcome his evil habit; and, although he had been using chloral regularly for eighteen months, he recovered entirely. It should be stated, however, that while giving up the chloral habit he took from time to time strychnia or nux vomica. (Medical Times, March 24.)

Fissure of the Anus. (Thos. Hay, M.D., in Medical and Surgical Reporter, April, 1883.)—The value and efficacy of iodoform in fissure of the anus will bring this remedy into general use in the treatment of this painful and heretofore incurable lesion, without operation by the knife or forcible rupture of the sphincter-ani muscle.

As in cases involving the greatest danger, so with fissure of the anus—if the trouble can be cured by simple means, without suffering to the patient, and in reasonably due time, the operation of cutting or forcible rupture is not justifiable, and both

these means of radical cure must give way to the more simple, if such may exist. With the experience I have had in the use of the local application of iodoform in cases of fissure of the anus, I am encouraged to bring the value of this remedy to the notice of the profession in these cases. In their treatment with this remedy, the alvine evacuations should always be maintained in a soft condition; the bowels should never be allowed to become constipated or relaxed; the anus, and parts involved by the fissure, should be kept constantly clean and free from deposit and dry incrustations; and, with one or two evacuations a day, the case may be speedily cured by the local use of iodoform. It may be dusted, in *very fine* powder, upon and into the fissured parts, or applied in the form of ointment or suppository. The application of the simple powders, if properly prepared, three or four times a day after each evacuation, and in the intervals, is often sufficient. In some cases, however, the undiluted powder —although thoroughly powdered—causes some pain. In such the iodoform may be mixed with powdered gum acacia, if a powder be preferred, or may be made into an ointment with vaseline, or suppository with the oil of theobroma. Balsam of Peru, carbolic acid, and oil of peppermint, will moderate the intensity of the iodoform odor; but this can hardly be requisite for application in this situation. The application of the remedy may be followed by a little smarting, but soon after its use the sensibility of the parts becomes benumbed, and even defecation may go on without consciousness so far as concerns the development of pain during or after the process. That this remedy applied as above directed and indicated will cause complete unconsciousness of the act of defecation, I doubt—I have never witnessed such result in any case that has come under my notice, and still the benumbing influence of the remedy is decidedly potent. As in applications to the conjunctival surfaces of the eyelids, the first and most important factor in the successful and painless use of the remedy consists in the proper preparation of the powder. It should be made *very fine*, and not the smallest crystal be allowed to remain unpowdered. The neglect of this precaution

when applied to the eye has caused the most painful inflammation of the ocular and palpebral conjunctiva, and, applied thus imperfectly powdered to the anus, would likewise cause intense suffering and, as in eye-practice, would be abandoned and declared to be dangerous and valueless, if intelligence did not bring relief.

THE RESPIRATORY CENTER.—In a communication to the *Societe de Biologie*, M. Laborde stated that he had repeated the experiment of puncture of the apex of the calamus by means of a very delicate method. Superficial irritation of this point with a needle leads in two or three minutes to arrest of respiration, the heart continuing to beat. He does not agree with the majority of writers that this effect is due to reflex action, but holds that it is direct irritation. Promising further proof, he contented himself on that occasion with stating that division of the crura cerebri and of the pneumogastric nerves in nowise hindered the superficial puncture of the apex of the calamus from producing arrest of respiration, showing that the assumed intervention of the vagi or of the cerebrum was not necessary to the effect. Prof. Brown-Sequard, in speaking of this paper, said that in 1858 he showed that the "noeud vital" had not the importance attributed to it by Fleurens. His own experiments, extending over twenty-five years, pointed to the localization of the respiratory center in the gray matter at the apex of the calamus. At the same time the most potent region governing respiration was to be found at the root of the spinal accessory nerve, although the respiratory center extends over a considerable part of the cervical cord. (Lancet, March 31, 1883.)

PROF. MARAGLIANO observed that strychnia in doses of 0.002 to 0.003 *pro die* was effective in dilatation of the heart, but only temporary. (*Centrabl. f. Med. Wissensch.*)

Notes and Queries.

INDIANA STATE MEDICAL SOCIETY.—The Indiana State Medical Society held its thirty-third annual session at Indianapolis on the 8th, 9th, and 10th of May.

About two hundred delegates were present from the seventy county societies.

The secretary, Dr. Elder, reported the Society in a very flourishing condition, there being a membership of one thousand two hundred and sixty, with one or two exceptions the largest medical society in the country.

As a rule, the papers presented to the Society were above the average, and the discussion of the various papers was more general than heretofore.

The address of the president, Dr. Wm. H. Bell, on Some of the Hindrances to the Advancement of Medical Knowledge, and some of the Methods for Fostering its Interest, was most excellent, and Dr. Bell will no doubt issue it in pamphlet form.

Of course the question of the code of ethics came in for consideration, and the Society was true to itself and the American Medical Association, in that it instructed its delegates to Cleveland to vote against any change in the ethical code so far as consultation with irregular practitioners was concerned.

The Society adjourned to meet again the second Tuesday in May, 1884.

SURGICAL CUTENESS.—An instance of surgical "cuteness" is just recorded from Paris, the subjects of which are those miserable creatures, as stupid as they are ugly, yclept poodles. It has occurred to a veterinarian that by a slight modification of nature's arrangement the poodle's tail can be converted into a

convenient *handle*, wherewith the animal may, as occasion requires, be *lifted* from place to place. He shaves the dog neatly, scarifies the tip of its tail, makes an incision for the reception of the tip beneath the skin of the animal's back a little behind the fore shoulder by means of a traverse cut, then, lifting the dermic tissues with the handle of the scalpel until a sufficient excavation is made, he inserts the tip of the tail in the wound and securely bandages it there. The result is a teapot sort of production that is eminently suggestive of the necessity for an appointment on the part of the Society for the Prevention of Cruelty to Animals. (London Medical News.)

HOMEOPATHY IN ENGLAND.—A homeopathic directory has recently been published in Great Britain. According to its pages there are two hundred and sixty practitioners of this class in Great Britain and Ireland, four only being in the latter country. As there are nineteen thousand nine hundred and forty-seven regular physicians, the ratio of homeopaths to regulars is for England and Wales, one to sixty-four; for Scotland, one to one hundred and seventy; and for Ireland, one to six hundred and nine. Most of the homeopaths are in large towns; thus London has eighty-five, and Liverpool eleven. The contrast between the condition of things, as shown above, in England and in this country appears to be considerable. It is claimed that there are about six thousand homeopaths, so called, in the United States, giving a ratio to regular practitioners of about one to ten.

BURIAL.—There can, we think, be no question that the practice of burial, in the ordinary sense, must survive the impracticable device of cremation. Burning the dead is a simply revolting and socially unsafe procedure. It offends the feeling of human respect, and it would open the way for the commission of the worst crimes. Murder by poison would, in fact, be a perfectly facile way of "removing" enemies or victims, if cremation were legalized. The law can not sanction this mode of

disposal of the dead; and, obviously, no man should allow the body of a friend or relative to be cremated, unless the law of the land in which he lives and the State of which he is a subject permits the practice. (Lancet, March 31, 1883.)

UNIVERSITY OF PENNSYLVANIA — SPECIAL NOTICE. — For the convenience of those who propose to study medicine in the medical department of the University of Pennsylvania, in Philadelphia, there will be held each day at 1 o'clock during the last week in June, at the office of Dr. C. H. Mastin, 110 St. Francis Street, Mobile, Ala., an admission examination in English composition and physics. This examination will not be required of those who possess a collegiate degree or a certificate of qualification, such as is referred to on page 49 of the catalogue. Address, JAMES TYSON, M. D., Secretary Faculty of Medicine, University of Pennsylvania, Philadelphia. The examination for the Gulf States will be held this year at Mobile during the last week in June.

OBITUARY.—Died, suddenly, April 29th, Mary Lewis, wife of Dr. Geo. F. Shrady, the editor of the Medical Record, of New York. The beloved and honored help-mete has gone to reap the

> "Lasting treasure
> Of perfect service rendered, duties done
> In charity, soft speech, and stainless days."

FEHLING'S TEST TABLETS we have found a most convenient test for sugar. They are very uniform, and seem to keep well.